Date: March 12, 2018

TO: Chris Lazaro, Erika Ragsdale, City of San Antonio, NHSD

FROM: Alex Steinberger, Fregonese Associates

Re: Fiscal Impact of Residential Development

The following memorandum outlines the purpose and modeling approach for the Fiscal Impacts of Residential Development Study. The study was commissioned by the City of San Antonio, Neighborhood and Housing Services Department, who engaged Fregonese Associates to create a residentially-focused fiscal impact model. References have been made throughout this document to a companion presentation delivered to the City of San Antonio's Housing Commission: Policy & Funding Subcommittee on February 20th, 2018. That document is included as Appendix B: Fiscal Impact Presentation Slides and referenced where appropriate.

Background

Fiscal impact modeling is the practice of quantifying the revenues and expenditures generated by public or private projects based on their impact on governmental budgeting. As its name implies, the Fiscal Impacts of Residential Development Study focuses specifically on the revenue and expenditure implications of new residential development in the City of San Antonio. The study considers public revenues, such as property tax and impact fees and public expenditures, such as those incurred by SAWS, CPS, emergency, and transportation services.

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Why Study Fiscal Impacts?

Fiscal impact modeling is a useful tool practiced by public agencies around the world. It provides an invaluable reflection on the outcomes of public policy and may shed light on potential policy changes that can improve the financial stability of public institutions. For this study specifically, the benefits revolve around understanding the long-term impacts of residential development.

Understanding the impacts that private sector residential development is having on the public bottom line can help the City and its partner agencies better plan for infrastructure. It can also help the City understand why certain styles of development occur more often, and why they get built where they do. Perhaps most importantly, fiscal impact modeling can help cities better understand how their policies are impacting the decisions of developers. Cities can weigh this information against stated policy objectives to better understand how to encourage residential development that meets those objectives.

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Relationship to Other Planning Efforts

San Antonio is at a tipping point. Over one million new residents are expected in the region by 2040 and strong economic growth has resulted in thousands of new units being built each year. San Antonio also recently adopted SA Tomorrow, a suite of policies that cover Comprehensive Planning, Multimodal Transportation, and Sustainability. At the same time, VIA Metropolitan Transit recently completed Vision 2040, a long-range plan for regional transit. The policy objectives in these plans are charting a course for San Antonio's future. The extent the City's goals are met depends on how policies impact private sector decision-making.

SA Tomorrow Comprehensive Plan

The SA Tomorrow Comprehensive Plan provides the City with a planning framework of "building blocks." These include geographies called Regional Centers which acknowledge San Antonio's polycentric development patterns. Over time, Regional Centers are expected to grow significantly. The Fiscal Impacts of Residential Development Study will help the City better understand how development in these areas will impact public finances and provides a window into how existing policies may help or hinder development in those areas.

The SA Tomorrow Comprehensive Plan contains goals and policies that encourage development in specific parts of the City of San Antonio. The chapters on "Housing" and "Growth and City Form" both contain myriad policies that advocate for redevelopment in areas with existing infrastructure, and encourage more compact and mixed-use housing, where appropriate. Policies that impact fiscal revenue and expenditures will play a large role in meeting these goals.

SA Tomorrow Multimodal Transportation Plan

The SA Tomorrow Multimodal Transportation Plan advocates for a new set of city-wide transportation goals. These goals will be used to prioritize where, when, and how the City uses scarce public dollars to upgrade and expand transportation infrastructure. Several of the plan's stated goals dovetail with the Fiscal Impact of Residential Development Study, most notably "Strategic Development." This goal prioritizes projects in areas where new investment will utilize existing investments and be responsive to land use patterns. Fiscal impact of different styles of residential development in various locations should, in large part, determine the strategic value of transportation investments.

SA Tomorrow Sustainability Plan

The SA Tomorrow Sustainability Plan provides a blueprint for sustainable development in San Antonio. It includes a list of measurable objectives. Included in this list are the reduction of water and energy use. Fiscal impact modeling can help us better understand the water and energy use profiles of different styles of development and identify those types that should be encouraged to help meet the Sustainability Plan's goals.

VIA Vision 2040

Vision 2040 identifies 12 conceptual "rapid transit" corridors across the San Antonio region. VIA and the City have objectives that seek to encourage transit-oriented development (TOD). Fiscal impact modeling will help the City of San Antonio and VIA better understand the revenue and cost implications of TOD and help identify policies that can encourage this style of development.

Presentation Slides: 12-14

Guiding Principles

The fiscal impacts of residential development have significance across many concurrent planning efforts. Understanding these impacts will be an essential ingredient to the success of the City and VIA's planning efforts. The Fiscal Impacts of Residential Development Study is not intended to provide specific policy recommendations to the City or other public entities. Also, the study does not consider the impact that housing incentives such as ICRIP or CCHIP may have on the fiscal impact of residential development. Rather it provides a means by which to measure the impact of certain policies and better understand potential next steps. The study was conducted in accordance with three guiding principles:

1. Study revenue impacts of different styles of development.
2. Better understand the cost implications of serving development in different locations.
3. Build a model that estimates revenues and expenditures based on existing development patterns.

Presentation Slides: 4-5

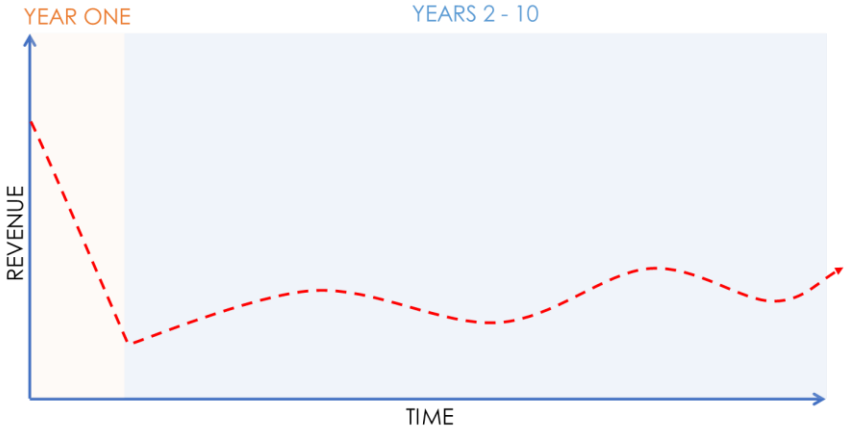
Components of Fiscal Impact

The Fiscal Impact of Residential Development Study measures both revenues and expenditures generated by new residential development. In order to fully understand the impacts of residential development, we must first explore the components of revenue and expenditure that are accrued when residential development occurs.

Revenues

Revenues are collected by the City or another public entity and are accrued in two forms: ongoing revenue and one-time revenue. It is important to understand that, over the life of a building, one-time revenues can have a relatively large impact on development feasibility but represent a relatively small portion of long-term revenue as the figure to the right shows.

Exhibit 1: How Revenue Accrues Over Time



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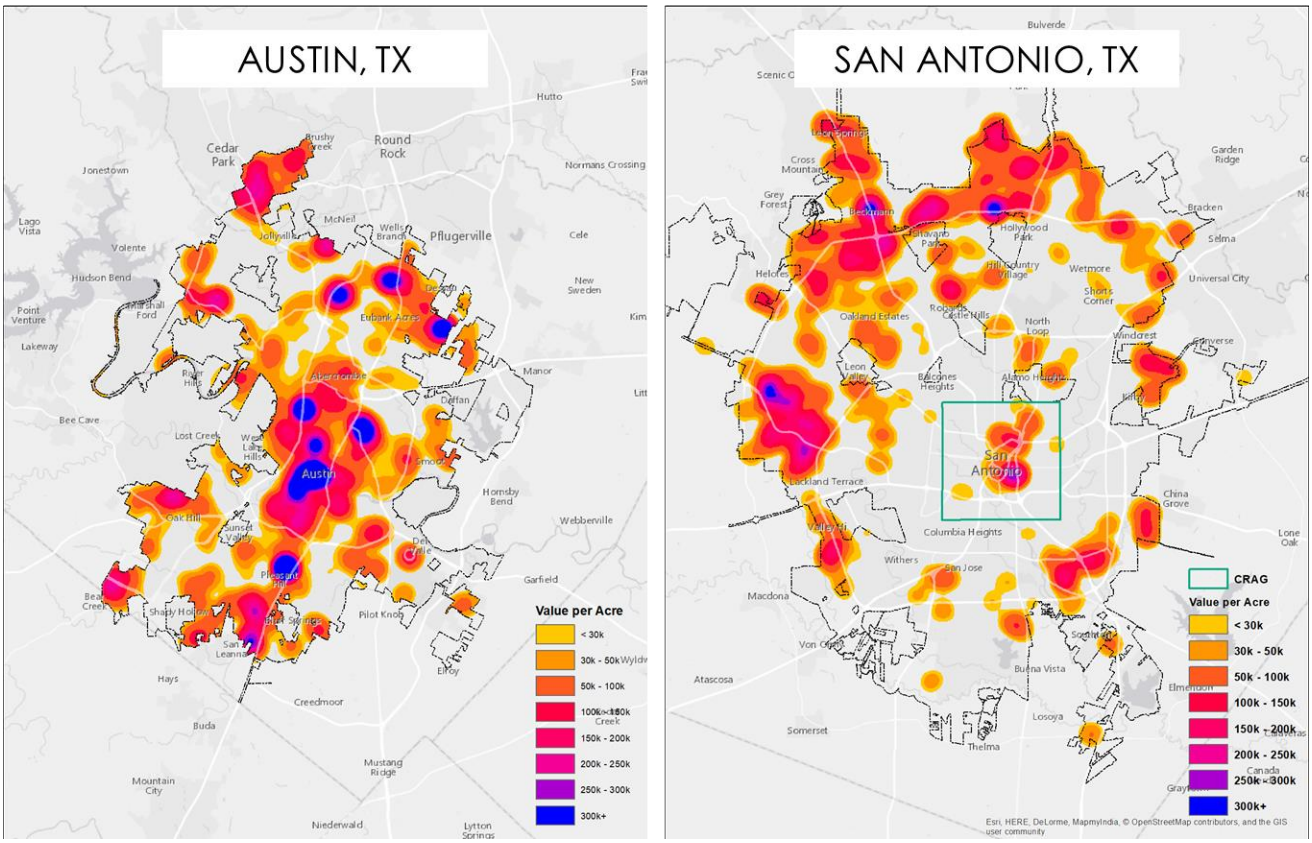
Ongoing Revenues

Ongoing revenues accrue on a monthly or yearly basis and can fluctuate based on market conditions. These include taxes such as property and sales tax and fees for service such as solid waste, water, wastewater, and energy.

Examples of Ongoing Revenues

Property tax is a prime example of ongoing revenue for a city. Mapping this data for other large Texas cities shows a very different trend from what has occurred in San Antonio over the past 10 years. In Austin, much of the development value that has been added to the region since 2005 has been concentrated in the City's urban core with a few outlying areas also seeing significant investment. By contrast, San Antonio's pattern of private investment heavily favors the urban fringe. As evidenced by the exhibit [1]below, much of the development value that has been invested in the City since 2005 has occurred outside loop 410.

Exhibit 2: Development Value per Acre, 2005 - 2014



Presentation Slides: 23-27

[1] Source: City of San Antonio, Development Services / City of Austin, Planning and Zoning Department

One-Time Revenues

One-time revenues accrue only once, during or directly after a development project is completed. One-time revenues include permit fees, impact fees, and civil infrastructure upgrade costs. In San Antonio, impact fees are assessed for water and wastewater system development. They vary based on location and type of housing and are collected by SAWS. Permit fees are miscellaneous inspection and other assessment fees collected by the City of San Antonio. Civil infrastructure costs are less predictable and can include utility pole relocation, right of way dedication, electric meter upgrades, and water utility upgrades. These fees are collected by various agencies and are site-specific.

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Expenditures

Much like revenues, expenditures accrue in both one-time and ongoing increments.

Ongoing Expenditures

Ongoing expenditures are the costs for service provision and the cost for maintaining infrastructure, often referred to collectively as operations and maintenance (O&M). O&M costs include everything from the police and fire payroll to annual roadway maintenance performed by the Transportation and Capital Improvements Department (TCI).

It is important to understand the variability of ongoing expenditures, especially when considering the impact of growth in different parts of the city/region. For instance, the City of San Antonio maintains an 8-minute fire response minimum level of service. This level of service is costly to maintain if more compact development patterns persist. However, if growth continues to occur outside 410, it is likely that new fire stations will need to be built in order to serve the needs of new residents and businesses being built at the urban fringe.

Presentation Slides: 32-34

One-Time Expenditures

One-time expenditures are those expenditures that accrue only once and are the direct results of new development. For instance, if a new development requires a new traffic signal or water main, these costs are often represented as one-time expenditures.

For the purposes of this modeling exercise, it was assumed that one-time expenditures would accrue at the same per-unit rate as was observed during the 2015 fiscal year. For instance, if the one-time capital expenditure for new roadways in 2015 was x, and the total new units built in that year was y, then we assume a constant rate of x/y per new unit built in each development scenario.

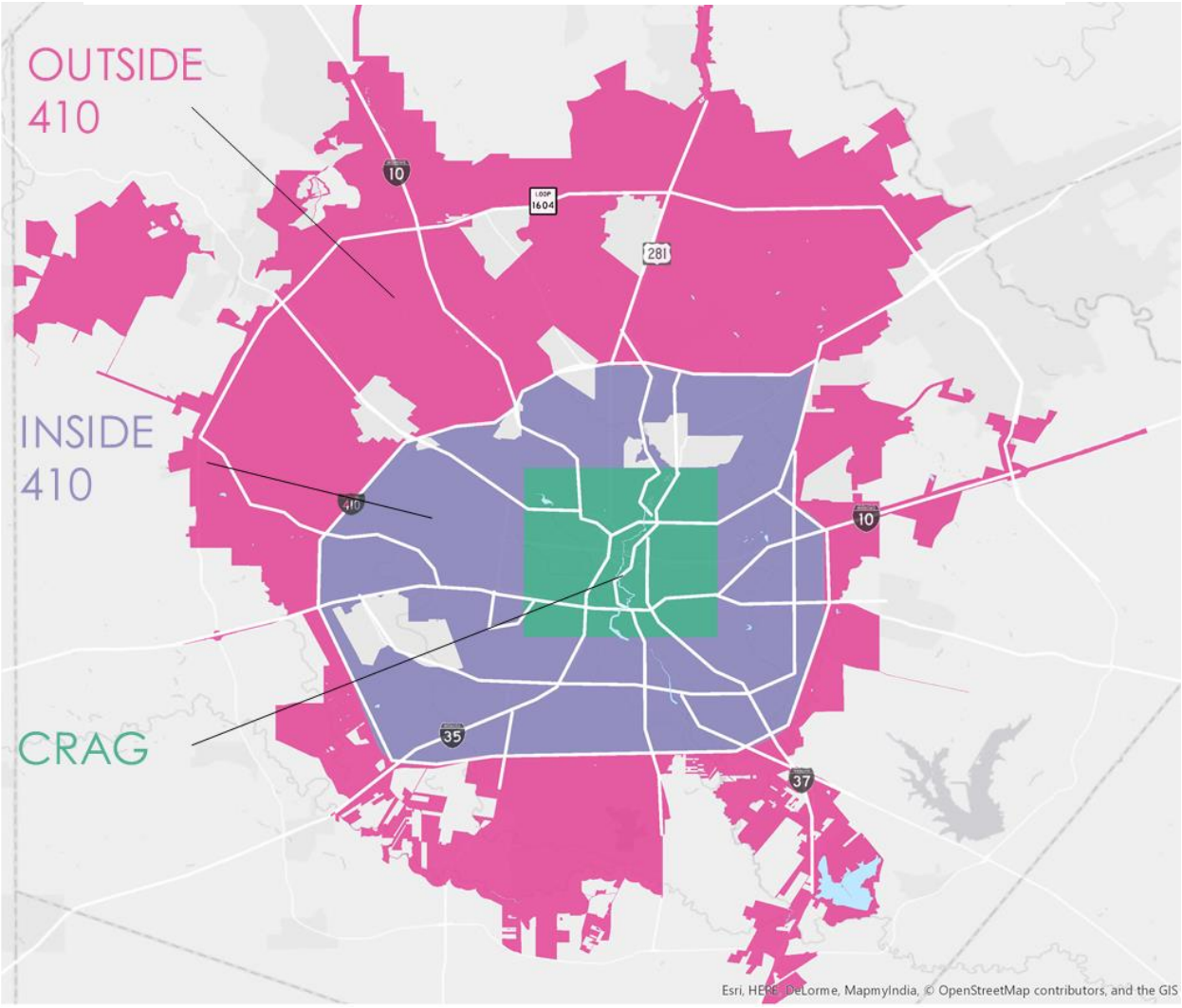
Study Parameters

At the core of the Fiscal Impact of Residential Development Study is a robust fiscal impact model. The following section details study assumptions, scope, and parameters.

Locations of Development

The study focused on three areas of the City of San Antonio: the area within the Community Revitalization Action Group (CRAG), the balance of the area within loop 410, and the areas between loop 410 and the San Antonio city limits. These are depicted in the image below.

Exhibit 3: Study Areas



Presentation Slides: 15-16

Styles of Residential Development

Four styles of residential development were studied: conventional single-family, compact single-family, low-rise multi-family, and mid-rise multi-family. These styles were further subdivided by the characteristics they exhibit in the three study areas mentioned above. A summary table of these residential types is provided on page 7. For example images of residential types, see Appendix A.

Exhibit 4: Residential Construction Types

	CRAG		Inside 410		Outside 410	
	Description	**Average Unit Size**	**Description**	**Average Unit Size**	**Description**	**Average Unit Size**
Conventional Single-Family	Smaller homes on smaller lots	1,650	Larger homes on smaller lots	2,050	Larger homes on larger lots	2,350
Compact Single-Family	Multiple units per site, shared access	1,500	Smaller homes on smaller lots	1,900	Large duplexes	2,150
Low-Rise Multi-Family	Multi-plex style apartments	855	Multi-plex style apartments	815	Large units, garden apartments	1,050
Mid-Rise Multi-Family	Residential over retail with structured parking	875	Breezeway apartments	940	Large apartment complexes w/amenities	950

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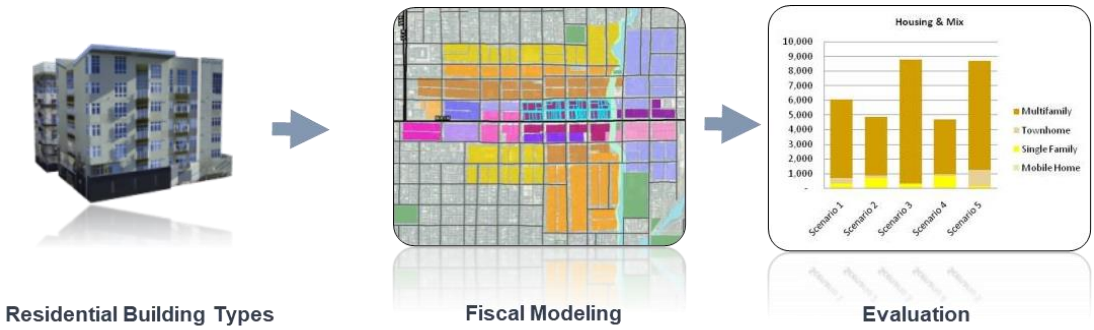
Modeling Assumptions

Scenario planning is the practice of considering multiple potential development outcomes across a range of performance metrics and is an ideal concept to apply in fiscal impact modeling. The fiscal impact model was developed to be compatible with Envision Tomorrow, a land use scenario planning model. Modeling occurred in several steps shown in the workflow graphic below.

Exhibit 5: Modeling Process



Residential Building Types

The first step is to develop a library of prototype buildings using Envision Tomorrow's Prototype Builder Pro-Forma. Prototype buildings are the building blocks of Envision Tomorrow scenarios and represent a range of existing and aspirational building types. A library of prototype

buildings was customized based on the residential building types research detailed above. Each building type contains detailed information about density, construction costs, sales prices, and rents specifically calibrated to San Antonio. Modeling buildings in real estate pro-forma was necessary because it provides all the detailed revenue and service assumptions that allow Envision Tomorrow to provide key fiscal inputs such as population density, water use, and trip generation by building type.

Exhibit 6: Building Type Parameters

Building Parameters	Stories	Floor-Area Ratio (FAR)	DU per Acre
Standard SF - CRAG	2	0.32	10
Standard SF - Inside 410	1	0.31	7
Standard SF - Outside 410	1	0.22	4
Compact SF - CRAG	2	0.48	16
Compact SF - Inside 410	2	0.41	10
Compact SF - Outside 410	2	0.30	6
Low Rise - CRAG	3	0.92	35
Low Rise - Inside 410	3	0.69	30
Low Rise - Outside 410	3	0.64	22
Mid Rise - CRAG	5	2.71	83
Mid Rise - Inside 410	4	0.75	33
Mid Rise - Outside 410	4	1.40	37

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Budgetary Scope

The Fiscal Impact of Residential Development study covered three separate public entities: the City of San Antonio, CPS Energy, and SAWS.

CPS

For CPS, the entire agency budget was modeled including projected energy use by household. Household energy consumption was modeled using Envision Tomorrow and used to estimate monthly energy revenues accrued by each residential type.

SAWS

The entire SAWS agency budget was reconstructed for this study. This includes using water use estimates from Envision Tomorrow to estimate monthly water and wastewater revenues accruing to different residential types.

City of San Antonio

The City of San Antonio's budget is comprised of the General Fund, Special Revenue Funds, Enterprise Funds, and Internal Services Funds. For the City of San Antonio, only the General Fund was studied. The General Fund captures a large portion of the revenues and expenditures occurring within the City of San Antonio and includes most of the City departments whose service provision is impacted by land use development patterns. These include the following:

- Development Services
- Police
- Fire
- TCI
- Parks and Recreation

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Level of Service Assumptions

The modeling approach used in this study is the "level of service" approach. Level of service, sometimes called average cost, assumes that costs of service increase at a constant rate as a region grows. To estimate level of service costs, the 2015 General Fund, CPS, and SAWS budgets were used (most recent year available). For each expenditure category, a relevant unit of growth was assigned. Units of growth include factors such as population, dwelling units, or automobile trips. Annual expenditures are then converted to a growth unit basis such as expenditure per capita or per dwelling unit. The full list of growth unit assumptions is included below.

Exhibit 7: Level of Service Units

Department	Growth Unit	Agency
Code Enforcement Services	Per Property	CoSA General Fund
Fire	Per Property	CoSA General Fund
Health	Per Capita	CoSA General Fund
Historic Preservation	Per Capita	CoSA General Fund
Human Services	Per Capita	CoSA General Fund
Parks & Recreation	Per Capita	CoSA General Fund
Planning & Community Development	Per Capita	CoSA General Fund
Police	Per Property	CoSA General Fund
Transportation and Capital Improvements	Per Auto Trip	CoSA General Fund
Other	Per Capita	CoSA General Fund
O&M - Water Supply	Per Property	SAWS
O&M - Water Delivery	Per Gal. Water Used	SAWS
O&M - Wastewater	Per Gal. Wastewater	SAWS
Other	Per Capita	SAWS
Fuel, purchased power, and dist. Gas	Per MMBTU[2]	CPS
O&M	Per MMBTU	CPS
Other	Per MMBTU	CPS

[2] British thermal units (BTUs) are a standard unit of measurement of the amount of heat energy in fuels. MMBTU represents one million BTUs.

Location Factors

Location factors of development were also considered for certain service categories. The intent of location factors is to capture the cost difference in maintaining and operating services and infrastructure in different parts of the city. The table below shows the location factor assumptions and how they were computed.

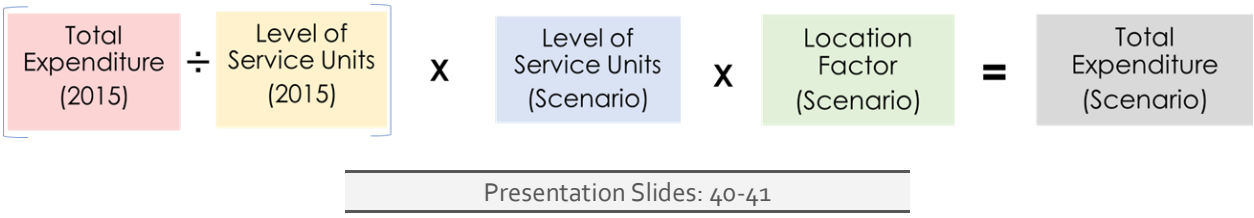
Exhibit 8: Basis of Location Factors

Service	Basis	City-Wide	CRAG	Inside 410	Outside 410
Police	Housing units per Police Substation	76,162	35,928	56,875	145,325
Fire	Housing units per Fire Station	10,454	5,166	8,069	13,470
Library	Population per Library Facility	46,331	26,414	47,433	56,209
Parks	Percent of population within .25 miles of park	29%	52%	33%	21%
Water Supply	Water supply fee (based on elevation)	$714	$619	$619	$799
Wastewater	Wastewater fee (based on elevation)	$1,922	$719	$1,469	$2,520
TCI O&M	Average trip length (from Envision Tomorrow)	3.6 mi.	2.1 mi.	3.2 mi.	4.2 mi.

Calculating Scenario Expenditure

Once location factors and service assumptions have been assumed, expenditures are calculated. Expenditures are calculated for a given scenario by multiplying the level of service by the growth units in a given scenario and the location factor for the location where development is occurring. This process is illustrated in the graphic below.

Exhibit 9: Example Expenditure Calculations



Model Results

Modeling was done for each residential development type in each location. Each test was done on a hypothetical 1-acre site. For each type, total revenues were compared to total expenditures using three separate metrics, which are described in the following section.

Ongoing Revenues and Expenditures

One way to measure fiscal impact is by simply comparing ongoing revenues (such as property tax) to ongoing expenditure (O&M). This eliminates the one-time costs that are only accrued in the first year of a project's existence. The table below shows results for CPS, SAWS, and the City combined by study area for each of the residential types. Note that values highlighted in red show residential types that accrue more ongoing expenditure than revenue on a yearly basis. This means that they cost more to serve than they provide back to the City, SAWS, and CPS in terms of revenue.

Exhibit 10: Ongoing Revenues and Expenditures by Location

	CRAG		Inside 410		Outside 410	
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures
Conventional Single-Family	**$43,515**	$32,575	**$33,278**	$31,648	$23,955	**$27,709**
Compact Single-Family	**$62,376**	$30,703	**$45,590**	$30,167	$32,001	**$34,108**
Low-Rise Multi-Family	**$94,035**	$50,078	**$79,548**	$50,089	**$45,590**	$58,907
Mid-Rise Multi-Family	**$264,579**	$113,211	**$86,495**	$54,393	**$79,548**	$88,803

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One-Time Revenues

One-time revenues paint a very different picture from ongoing revenues. Unlike ongoing revenues, one-time revenues are only captured in year-one of a development's lifespan. These revenues impact developers in the form of one-time fees which include impact fees, permit fees, and civil infrastructure costs. While impact fees and permit fees are predictable, civil infrastructure costs are site-specific. In early 2017, Russell Yeager with Big Red Dog Engineering provided the City with an estimate of per unit civil infrastructure costs for single family product in an "urban" (i.e. inside 410 and CRAG) context and "standard" (i.e. outside loop 410) context. These estimates were based on for-sale single family projects for which Big Red Dog Engineering provided development and engineering services. As the summary table on page 12 shows, the cost per unit can be significantly higher in the "urban" context.

Exhibit 11: Civil Infrastructure Costs

Per Unit Civil Infrastructure Costs	Urban	Standard
Water Infrastructure	$6,949	$2,004
Sewer Infrastructure	$5,408	$2,173
Access, Drives, Parking	$3,201	$9,250
Drainage	$0	$2,188
Electrical Service	$3,220	$1,875
Rough Proportionality	$1,420	$1,420
ROW/Easement Taking	$3,795	$0
Platting Fees	$100	$85
Total	$24,093	$18,995

When combined with other fees (impact and permit) these one-time revenues (fees to developers) can represent a relatively large percentage of the overall home price. The ~10% difference in per unit costs from CRAG to Outside 410 is exacerbated by the fact that gross home sales prices tend to be significantly higher outside 410 due to the larger size of single-family homes in that part of the City. As the table below shows, one-time fees represent a larger share of overall home costs, which may make development infeasible in some locations and, at a minimum, drives up home prices in others.

Exhibit 12: One-Time Revenues Combined

Civil, Permit, and Impact Fees Combined	CRAG	Inside 410	Outside 410
Total One-Time Revenue (Cost to Developer)	$30,118	$30,885	$27,213
Percent of Typical Home Value (Envision Tomorrow)	10%	9%	6%

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Implications for SA Tomorrow

From the above results, it is clear that compact development will provide better long-term fiscal health for the City of San Antonio than more dispersed development forms. However, compact development provides benefits beyond fiscal performance. It provides co-benefits that will help further many of the goals in the SA Tomorrow Comprehensive Plan, Sustainability Plan, and Multimodal Transportation Plan.

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SA Tomorrow Comprehensive Plan

Compact development, particularly when it occurs in infill locations, tends to align with the City of San Antonio's existing investments in public transportation. It also tends to be in job-rich locations where travel distance from home to work are shorter. As a result, compact development that is focused in the region's core can help keep household transportation costs low as the City grows.

In addition, compact development forms tend to include a broader range of unit types and smaller units on average. Having the option to choose smaller units, rentals, and condominiums will provide market rate housing that is affordable for households at a broader range of incomes. Both attributes of compact development support one of the Comprehensive Plan's guiding principles:

"Ensure an inclusive San Antonio by providing affordable housing and transportation choices throughout the city."

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SA Tomorrow Sustainability Plan

One of the stated "desired outcomes" from the City of San Antonio's Sustainability Plan is a limit on the growth of per capita water use over time.

"Water use in San Antonio is efficient and per capita consumption does not increase over time."

Compact development will help the City of San Antonio meet this desired outcome by producing housing units that use less water. Compact development forms such as small lot single family homes, townhomes, and apartments tend to have less fixtures per person and have less landscaping per household.

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SA Tomorrow Multimodal Transportation Plan

Compact development in infill locations will help the City of San Antonio meet objectives in the Multimodal Transportation Plan. The City has stated objectives to prioritize investments in areas with existing infrastructure so as not to continue to incentivize sprawl-like growth further from the region's job centers.

"Prioritize projects in areas where new investment will utilize existing investments and be responsive to land use patterns."

Compact development will help the City meet this goal by delivering housing in areas of the City that have existing infrastructure and urban form that reduces the need for driving. Research conducted by Fregonese Associates in 2017 showed lower average household vehicle miles traveled (VMT) in infill areas. This is due in large part of a well-connected street grid, higher population density, and a mix of uses in these areas.

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Conclusions

The Fiscal Impact of Residential Development Study shows that compact development in areas with existing infrastructure provides lasting benefits to the City while less compact development outside loop 410 tends to contribute negatively over time. The City of San Antonio and its partners have a strong fiscal argument to encourage infill. In addition, the City has strong direction from SA Tomorrow and other ongoing planning efforts to encourage compact development in areas with existing infrastructure. However, this study also shows that some financial barriers to developing infill currently exist. A summary of findings is included below.

Barriers to Infill

- Infill tends to occur in areas of San Antonio with aging infrastructure that that needs to be upgraded to meet the needs of new development.
- Permissive zoning, primarily in and around the Downtown core make residential infill more difficult because land costs are often higher and more unpredictable than in other parts of the city.

Ongoing Costs and Revenues

- Residential infill development costs less to serve and provides more revenue per acre than greenfield development.
- From a purely fiscal perspective, San Antonio should promote more compact housing located close to the region's core.

One-Time Costs and Revenues

- One-time fees, such as impact fees and infrastructure upgrade costs, make infill development in Downtown and the CRAG area less lucrative than development outside the 410 loop.
- Cost is not the only issue. The unpredictability and site-specific nature of civil infrastructure costs makes infill development more difficult than development outside 410.
- The large cost burden placed on housing developers translates into as much as a 10% increase in overall housing costs and are impacting affordability, especially within the CRAG area.
- The City, SAWS, and CPS should examine how they distribute one-time costs to ensure they are promoting infill development.

Slides 59-61

Appendix A: Example Images of Residential Types

Conventional Single-Family

Images: SA Board of Realtors

CRAG

Smaller homes on smaller lots.

Average Size*:
1,650 Sf

INSIDE LOOP 410

Larger homes on smaller lots.

Average Size*:
2,050 Sf

OUTSIDE LOOP 410

Larger homes on larger lots.

Average Size*:
2,350 Sf

**source: Redfin*

Compact Single-Family

Images: SA Board of Realtors

CRAG

Multiple units per site, shared access

Average Size*:
1,500 Sf

INSIDE LOOP 410

Smaller Homes on Small Lots

Average Size*:
1,900 Sf

OUTSIDE LOOP 410

Large Duplexes

Average Size*:
2,150 Sf

**source: Redfin*

Low-Rise Multi-Family

Images: CoStar

CRAG

Multi-Plex Style Apartments

Average Unit Size*:
855 Sf

INSIDE LOOP 410

Multi-Plex Style Apartments

Average Size*:
815 Sf

OUTSIDE LOOP 410

Large Units, Garden Apartments

Average Size*:
1,050 Sf

**source: CoStar*

Mid-Rise Multi-Family

Image: 1800 Broadway

Image: CoStar

Image: CoStar

CRAG

Residential over retail, structured parking

Average Unit Size*:
875 Sf

INSIDE LOOP 410

Breezeway Apartments

Average Size*:
940 Sf

OUTSIDE LOOP 410

Large Apartment Communities

Average Size*:
950 Sf

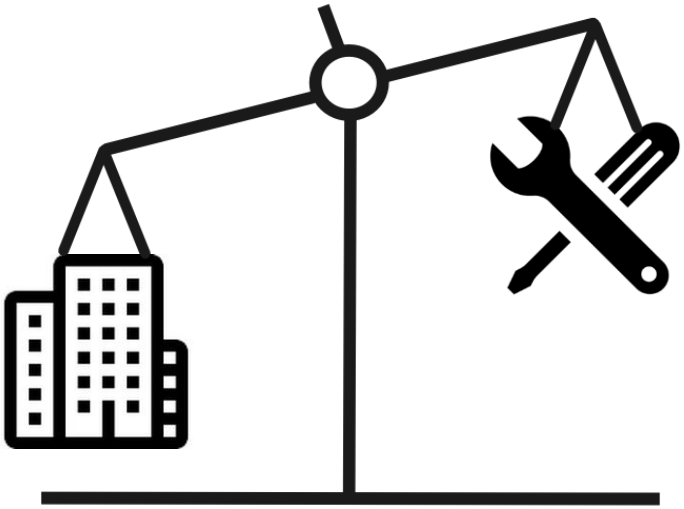
**source: CoStar*

APPENDIX B: FISCAL IMPACT PRESENTATION

This presentation was delivered to the City of San Antonio Housing Commission Subcommittee for Policy and Funding on February 20th, 2018. It is attached as an appendix for reference purposes.

What are Fiscal Impacts?

- Public Revenue
  - Property Tax
  - Sales Tax
  - Fees (Impact, Platting, Etc.)
- Public Expenditure
  - Police
  - Fire
  - Schools
  - SAWS
  - CPS



Every project has a unique fiscal impact depending on type and location of development…

Why Study Fiscal Impacts?

- Understand the long-term impacts of development.
- Plan for future infrastructure provision.
- Make a business case for promoting certain styles of development.
- Better understand how cost burden is distributed.

Study Goals

1. Study revenue impacts of different **styles of development**.
2. Better understand the cost implications of serving development in **different locations**.
3. Build a model that estimates revenues and expenditures based on **existing development** patterns.

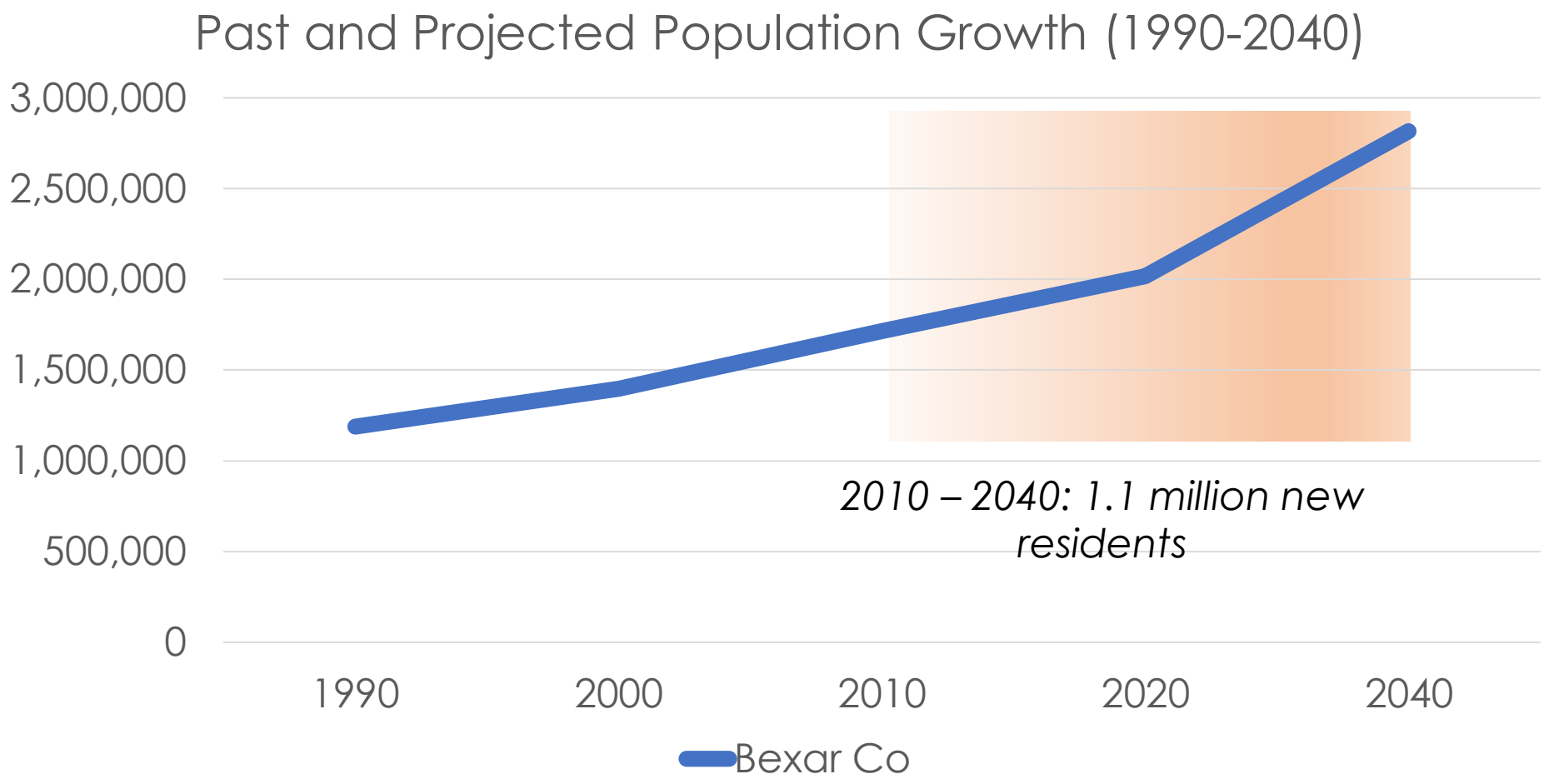
What Did We Model?

- Value of development
- Location-specific service costs
- Average annual costs of capital
- Impacts to SAWS, CPS, and CoSA General Fund.

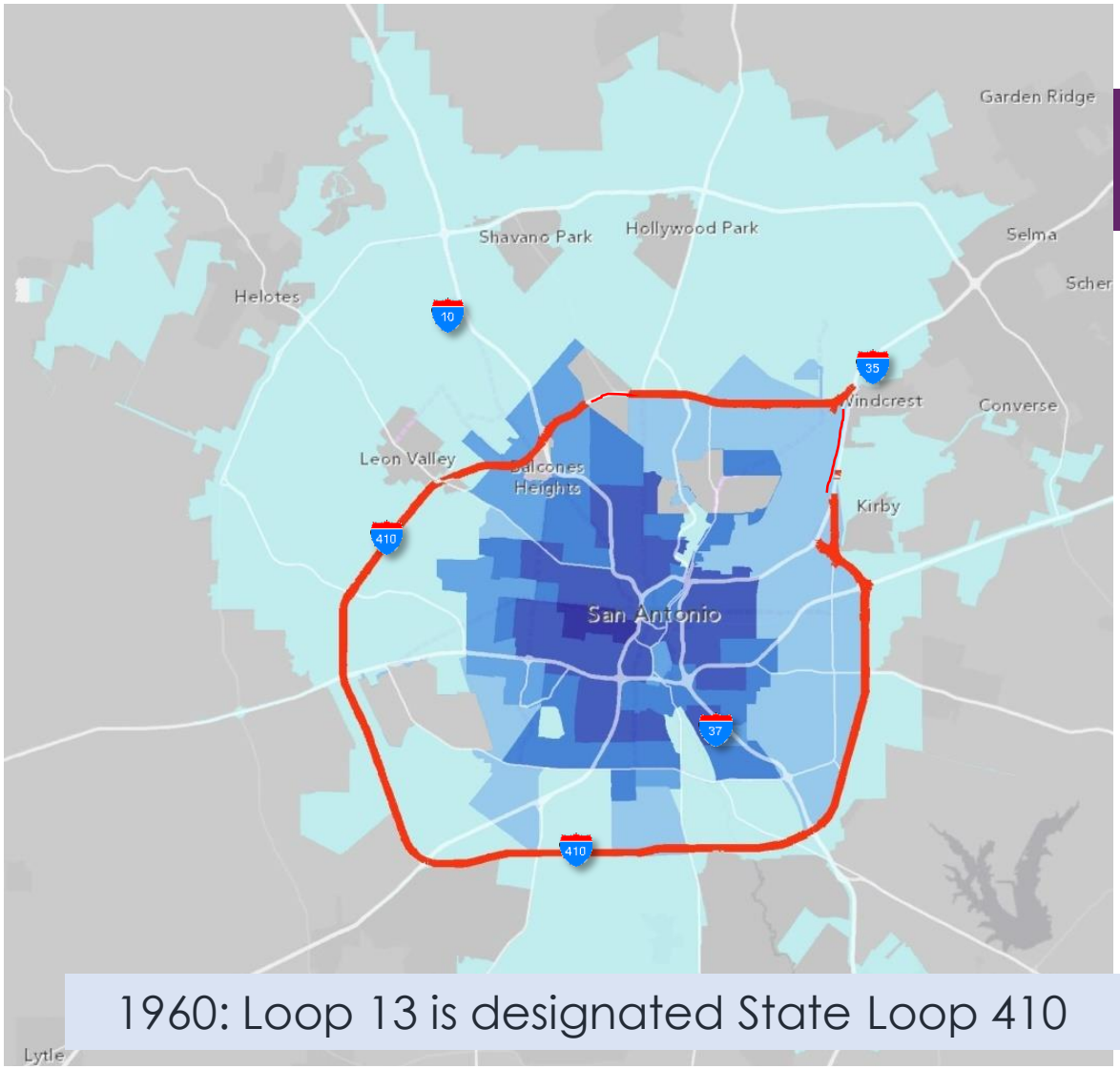
We did not account for…

- Incentives such as ICRIP or CCHIP
- One-time capital expansions
- Future shifts in service costs or values

Why Now?


Past and Projected Population Growth (1990-2040)
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
1990
2000
2010
2020
2040
2010 – 2040: 1.1 million new residents
Bexar Co

Growth Trends in San Antonio



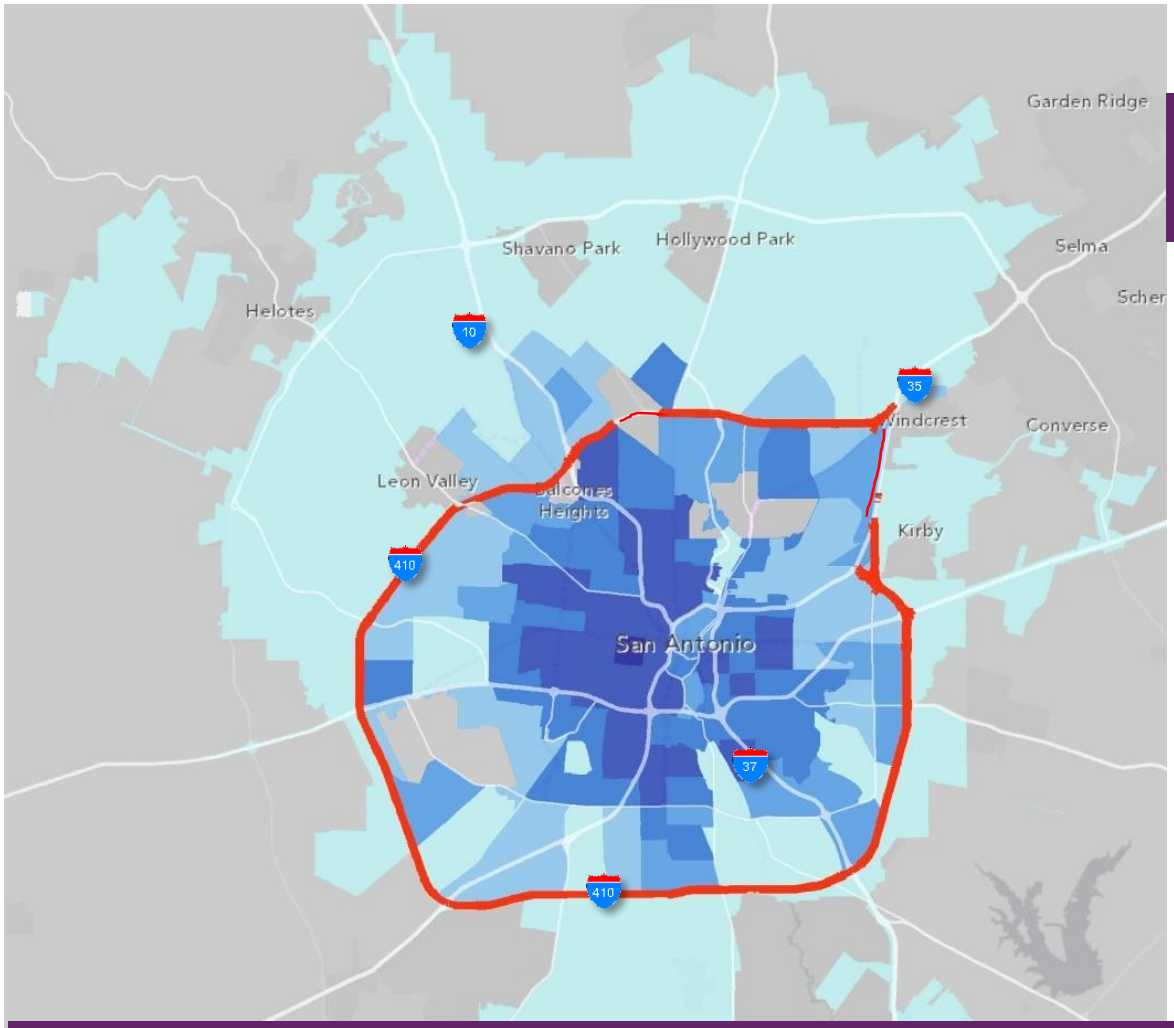
1960: Loop 13 is designated State Loop 410

1960

People/SqMi

- <1,000
- 1,001 - 2,500
- 2,501 - 4,000
- 4,001 - 6,500
- 6,501 - 15,000
- 15,000 +

Growth Trends in San Antonio



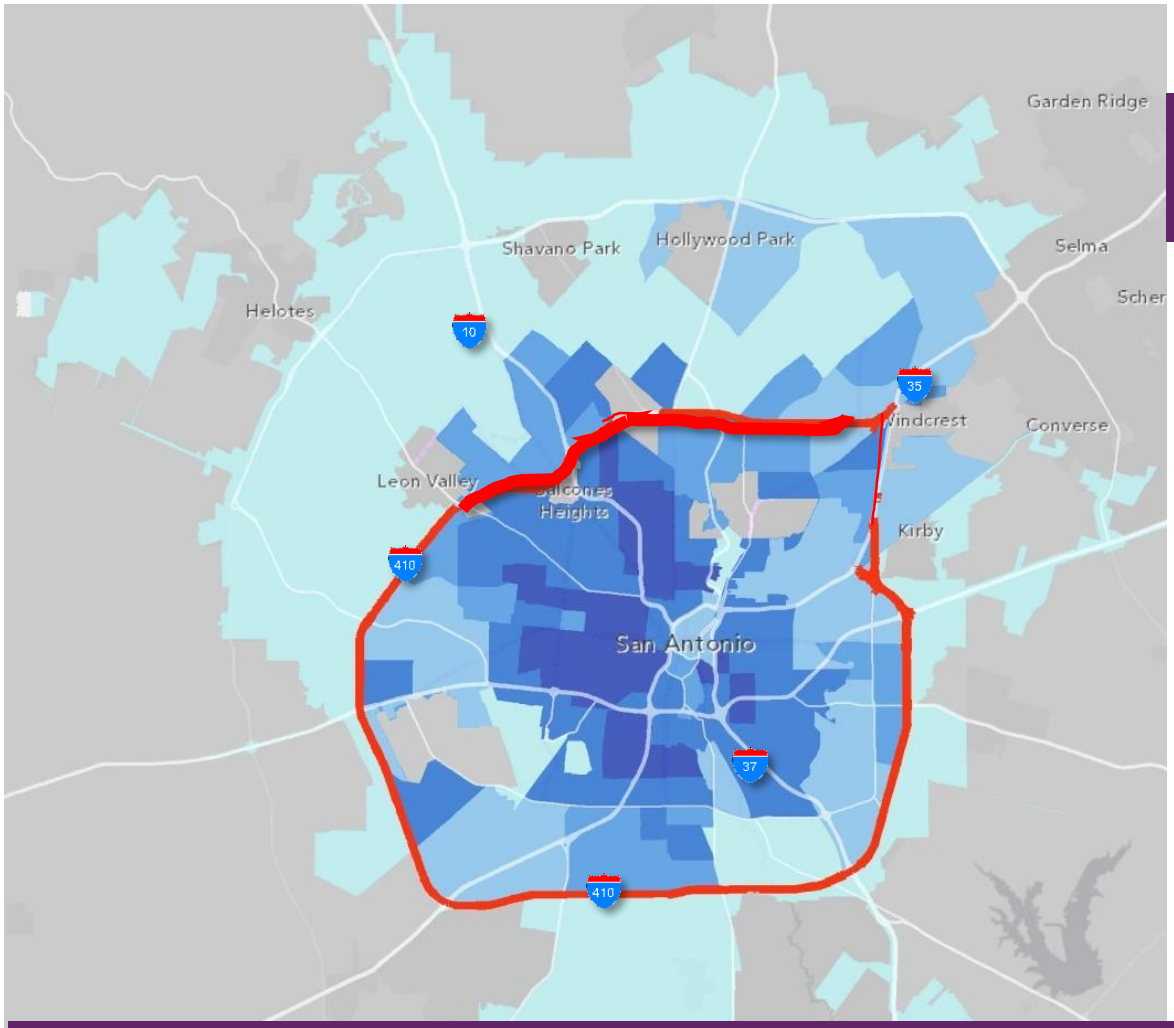
1970

People/SqMi

- <1,000
- 1,001 - 2,500
- 2,501 - 4,000
- 4,001 - 6,500
- 6,501 - 15,000
- 15,000 +

1967: 410 Loop is upgraded to interstate highway standards

Growth Trends in San Antonio



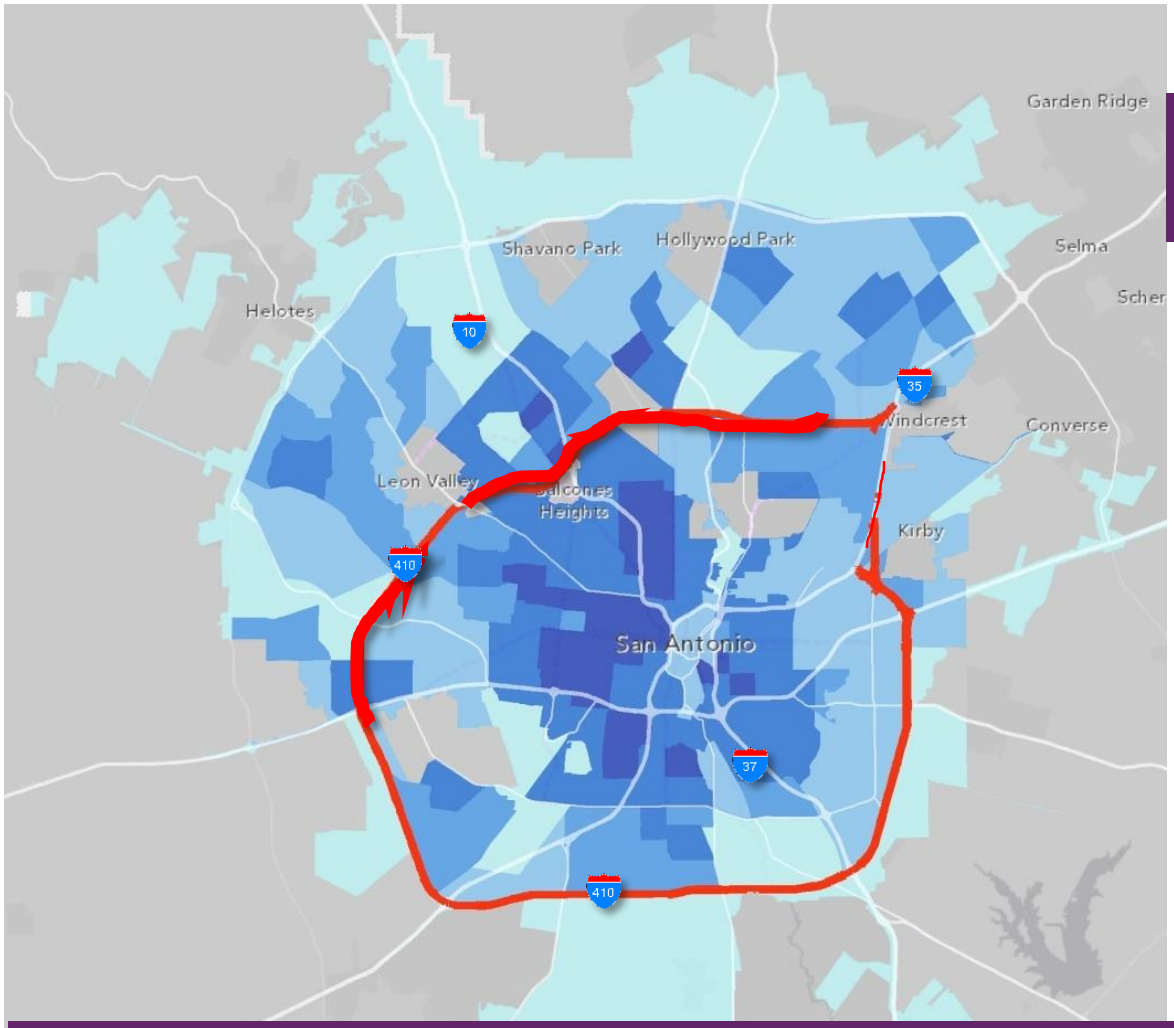
1980

People/SqMi

- <1,000
- 1,001 - 2,500
- 2,501 - 4,000
- 4,001 - 6,500
- 6,501 - 15,000
- 15,000 +

Late 70s/Early 80s: 410 expanded to 6 lanes btwn I-35 and Ingram

Growth Trends in San Antonio



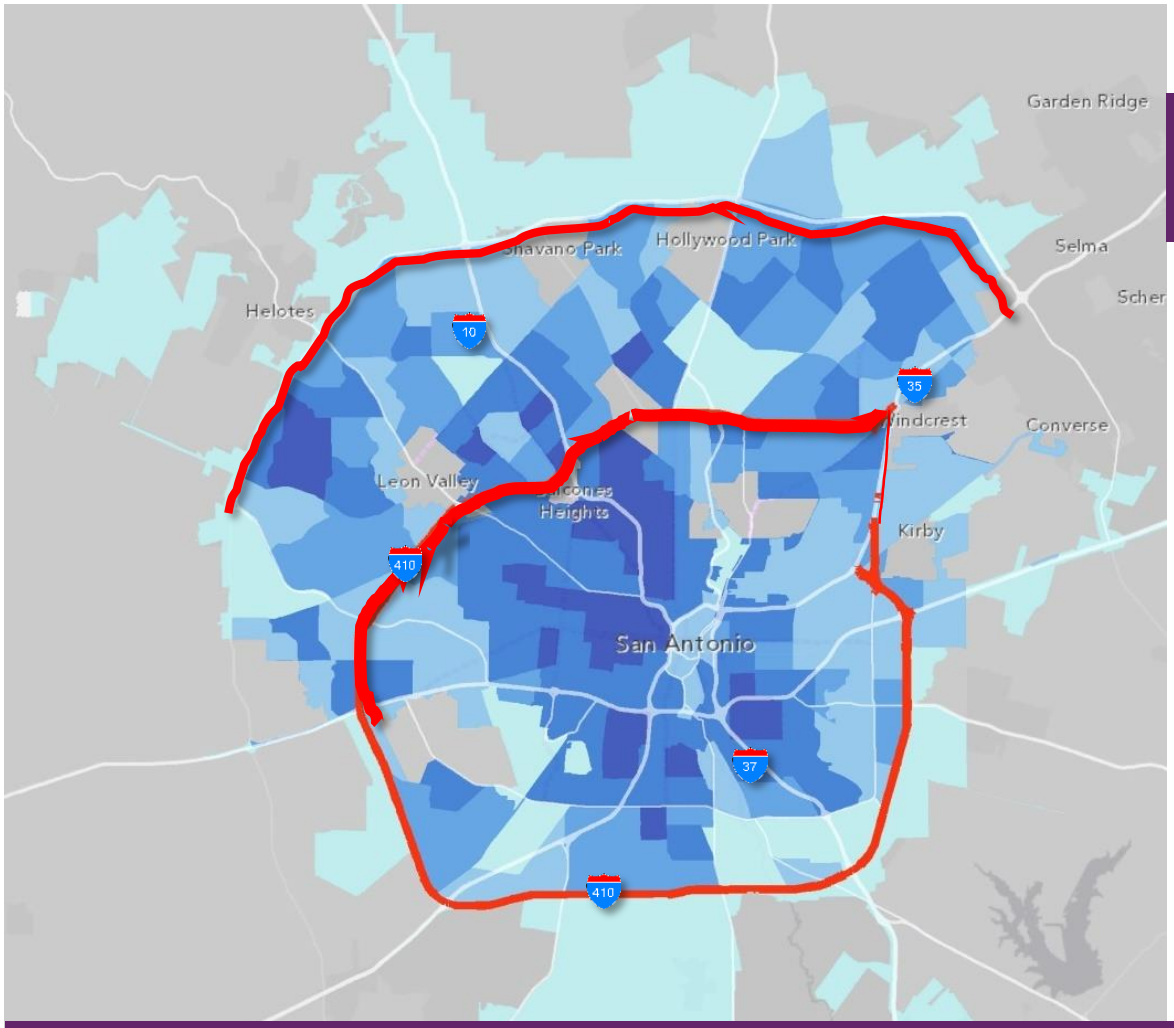
1990

People/SqMi

- <1,000
- 1,001 - 2,500
- 2,501 - 4,000
- 4,001 - 6,500
- 6,501 - 15,000
- 15,000 +

1987: 410 expanded to 6 lanes between Ingram and Valley Hi

Growth Trends in San Antonio



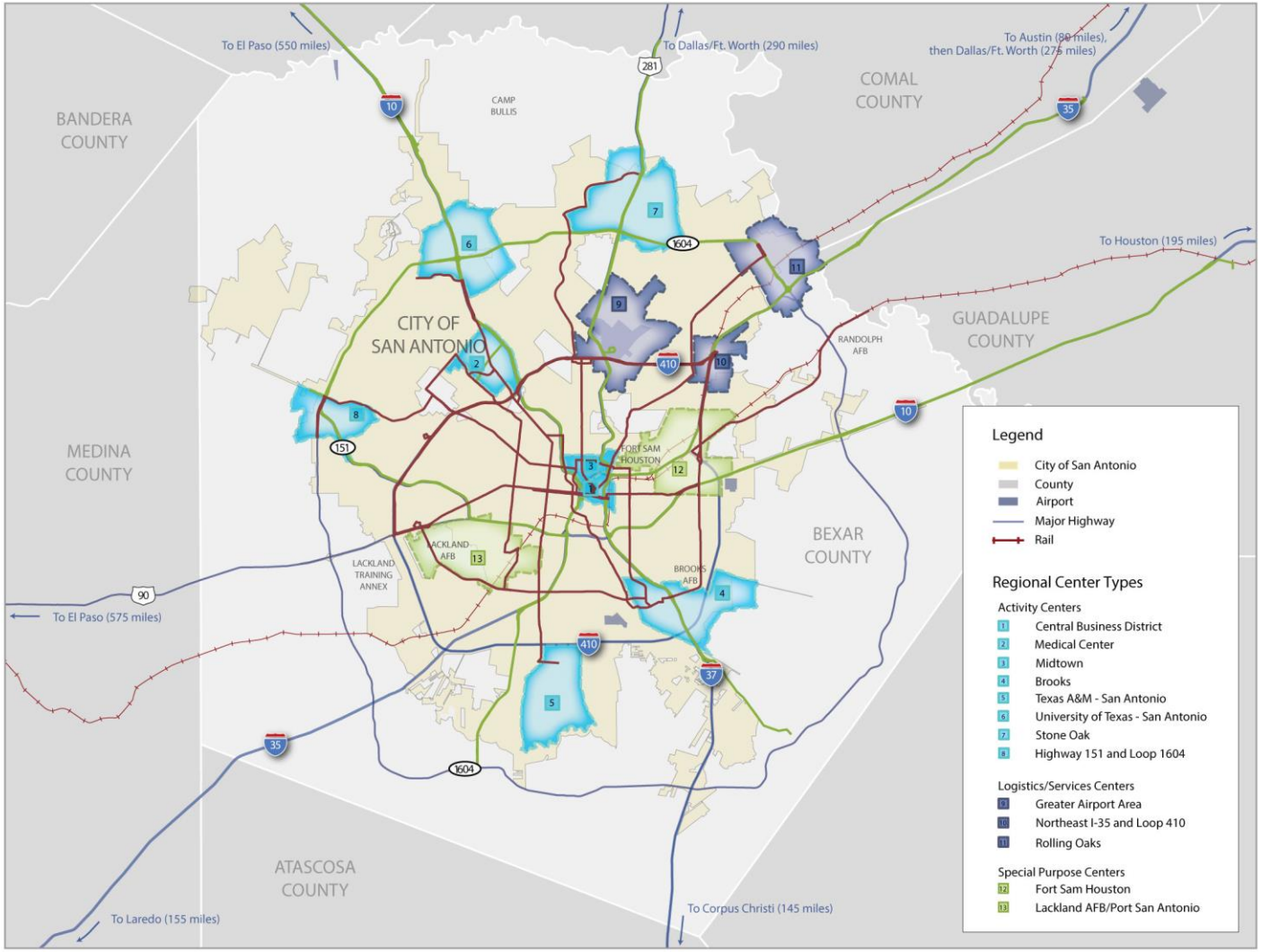
2000

People/SqMi

- <1,000
- 1,001 - 2,500
- 2,501 - 4,000
- 4,001 - 6,500
- 6,501 - 15,000
- 15,000 +

Late 80s/Late 90s: Loop 1604 upgraded from 2 to 4 lanes

Regional Centers



“Redevelop vacant and underutilized properties on transit corridors into stand alone or mixed-use higher-density housing.”

-Housing, Policy 21

"Continue to focus on the revitalization of neighborhoods adjacent to downtown and extend these efforts to regional centers, urban centers and transit corridors."

-Growth and City Form, Policy 8

Image credit: Terramark Urban Homes

The Fiscal Impact of Residential Development

COSTS AND REVENUES OF…

Styles of Development

- Conventional Single Family
- Compact Single Family
- Low Rise Multifamily
- Mid Rise Multifamily

Locations of Development

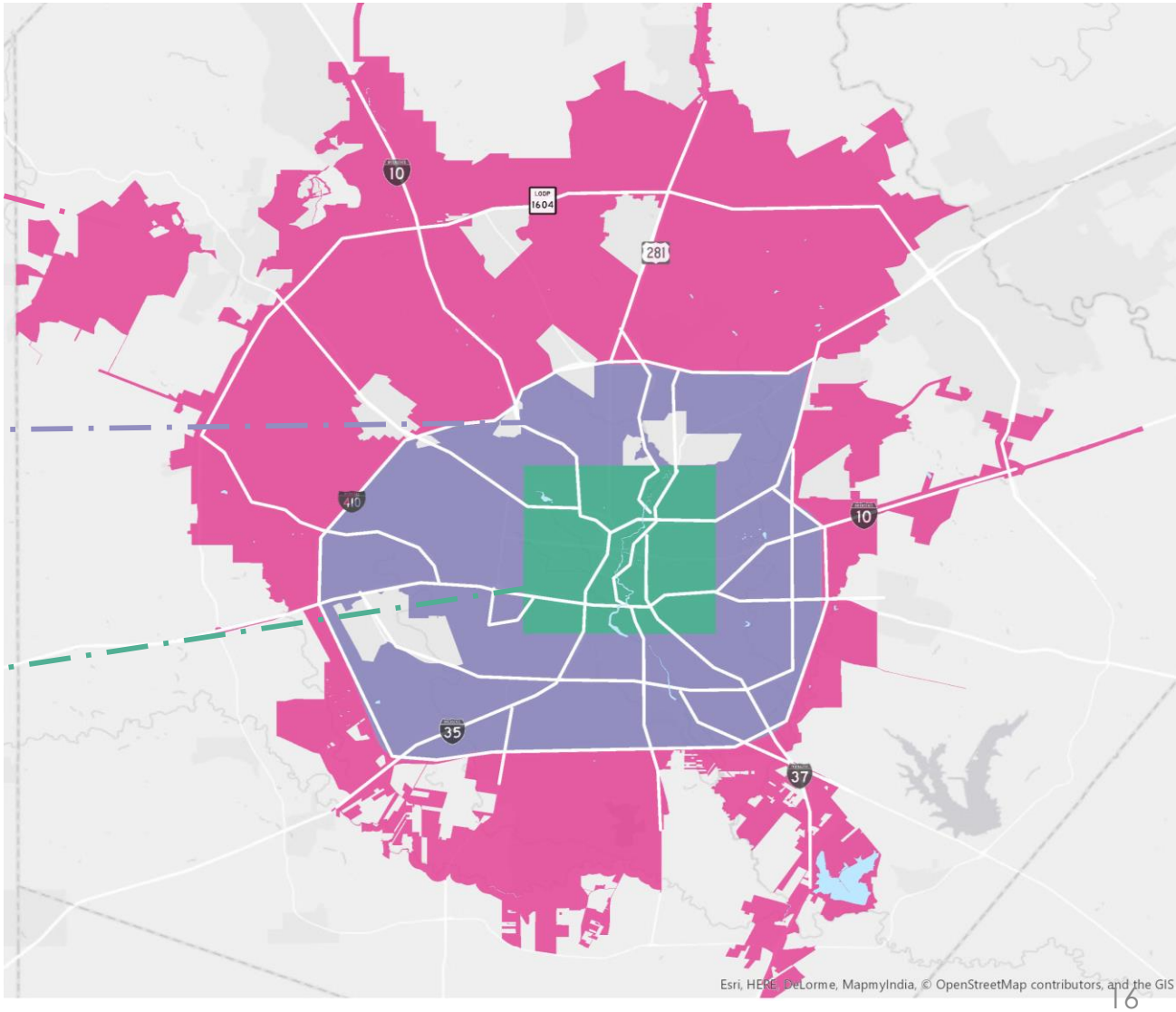
- CRAG
- Inside Loop 410
- Outside Loop 410

Location of Development

OUTSIDE LOOP 410

INSIDE LOOP 410

COMMUNITY REVITALIZATION ACTION GROUP (CRAG)



Conventional Single Family

Images: SA Board of Realtors

CRAG

Smaller homes on smaller lots.

Average Size*:
1,650 Sf

INSIDE LOOP 410

Larger homes on smaller lots.

Average Size*:
2,050 Sf

OUTSIDE LOOP 410

Larger homes on larger lots.

Average Size*:
2,350 Sf

**source: Redfin*

Compact Single Family

Images: SA Board of Realtors

CRAG

Multiple units per site, shared access

Average Size*:
1,500 Sf

INSIDE LOOP 410

Smaller Homes on Small Lots

Average Size*:
1,900 Sf

OUTSIDE LOOP 410

Large Duplexes

Average Size*:
2,150 Sf

**source: Redfin*

Low Rise Multifamily

Images: CoStar

CRAG

Multi-Plex Style Apartments

Average Unit Size*:
855 Sf

INSIDE LOOP 410

Multi-Plex Style Apartments

Average Size*:
815 Sf

OUTSIDE LOOP 410

Large Units, Garden Apartments

Average Size*:
1,050 Sf

**source: CoStar*

Mid Rise Multifamily

Image: 1800 Broadway

CRAG

Residential over retail, structured parking

Average Unit Size*:
875 Sf

Image: CoStar

INSIDE LOOP 410

Breezeway Apartments

Average Size*:
940 Sf

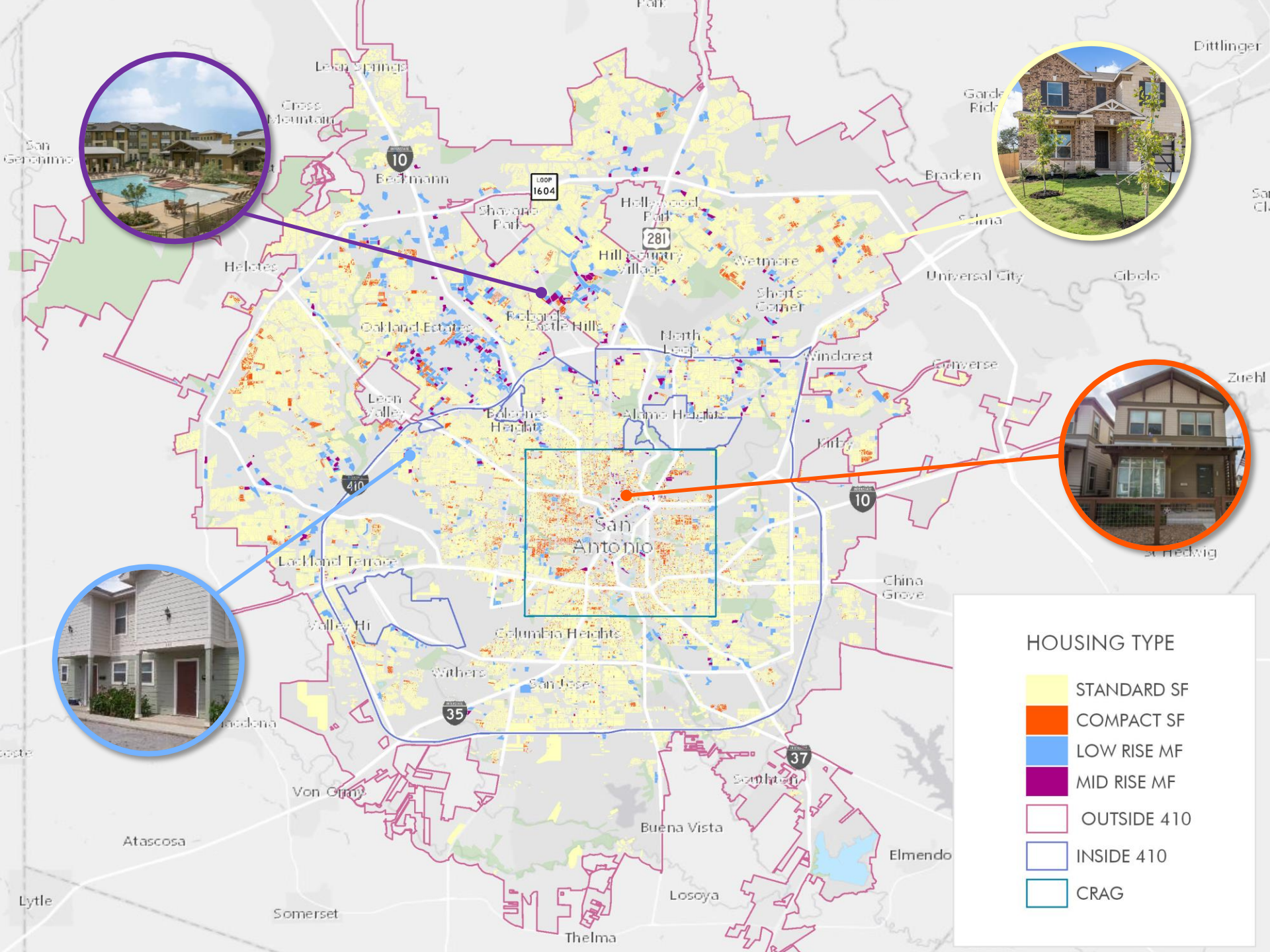
Image: CoStar

OUTSIDE LOOP 410

Large Apartment Communities

Average Size*:
950 Sf

**source: CoStar*


HOUSING TYPE
STANDARD SF
COMPACT SF
LOW RISE MF
MID RISE MF
OUTSIDE 410
INSIDE 410
CRAG
San Antonio
Lean Springs
Cross Mountain
San Geronimo
Beckmann
Shavano Park
Hollywood Park
Hill Country Village
Wetmore
Shorts Corner
Helotes
Oakland Estates
Robards
Castle Hills
North Loop
Windcrest
Converse
Leon Valley
Balcones Heights
Alamo Heights
Kirby
Lackland Terrace
Valley Hi
Columbia Heights
Withers
Sandoze
Von Ormy
Atascosa
Somerset
Lytle
Thelma
Losoya
Buena Vista
Elmendo
Southton
China Grove
Universal City
Cibolo
Bracken
Dittlinger
Zuehl
St Hedwig
LOOP 1604
10
281
410
35
37

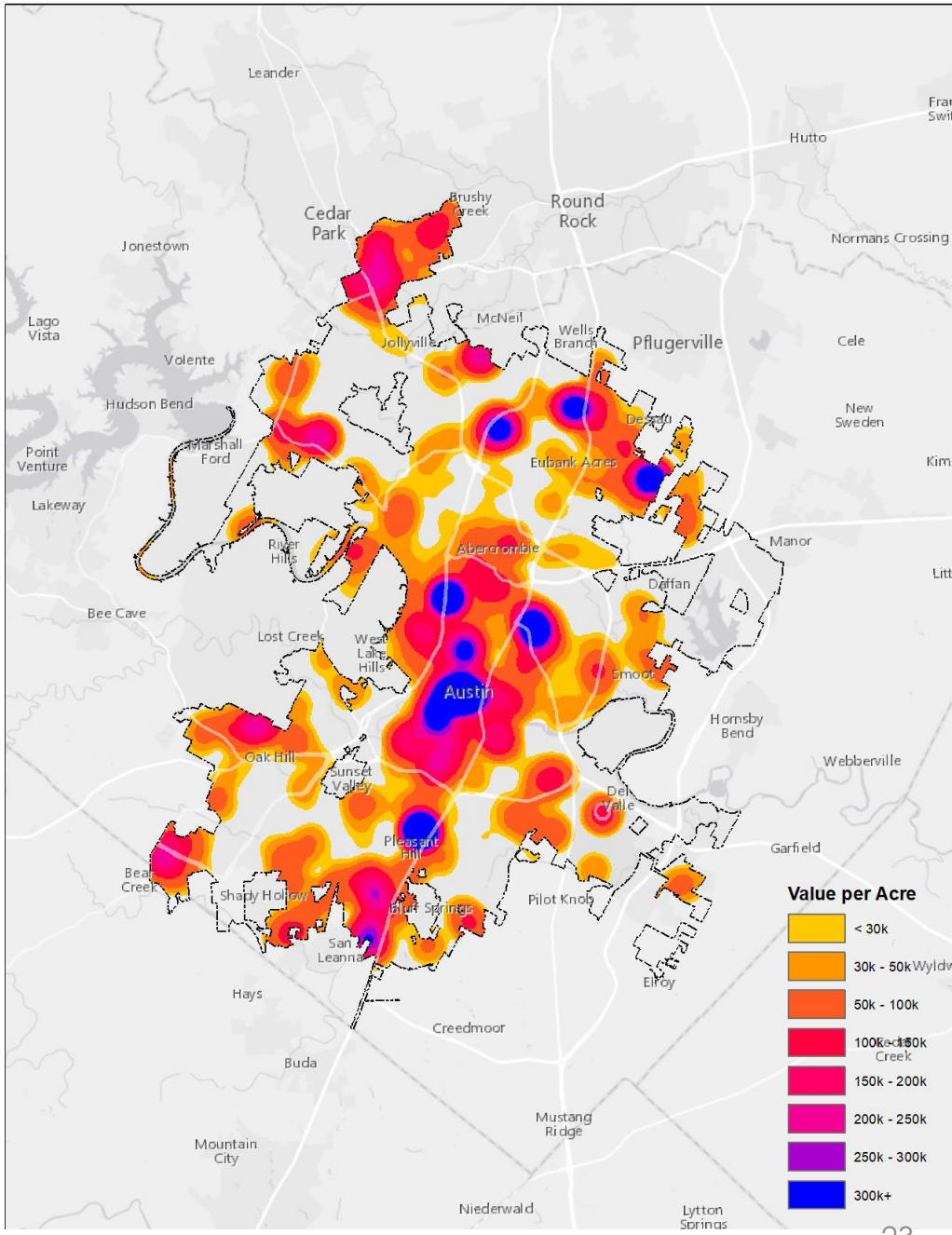
Sources of Residential Revenue

- Ongoing Revenue
  - Property Tax
  - Sales Tax
  - Utility Bills
- One-Time Revenue
  - Impact Fees
  - Permit Fees
  - Civil Infrastructure

Property Tax

AUSTIN, TX

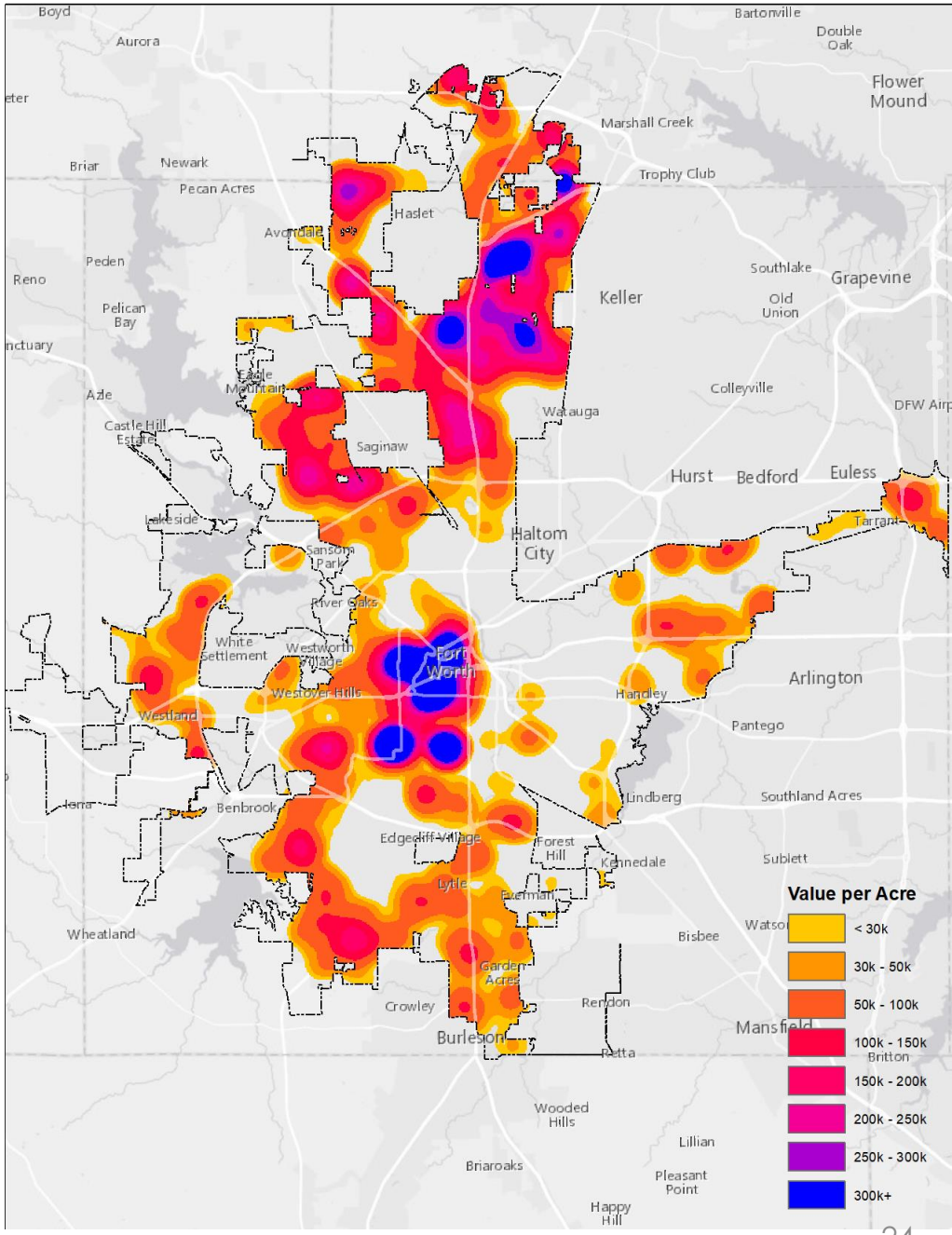
Permit Value per Acre (2005 – 2014)



Property Tax

FORT WORTH, TX

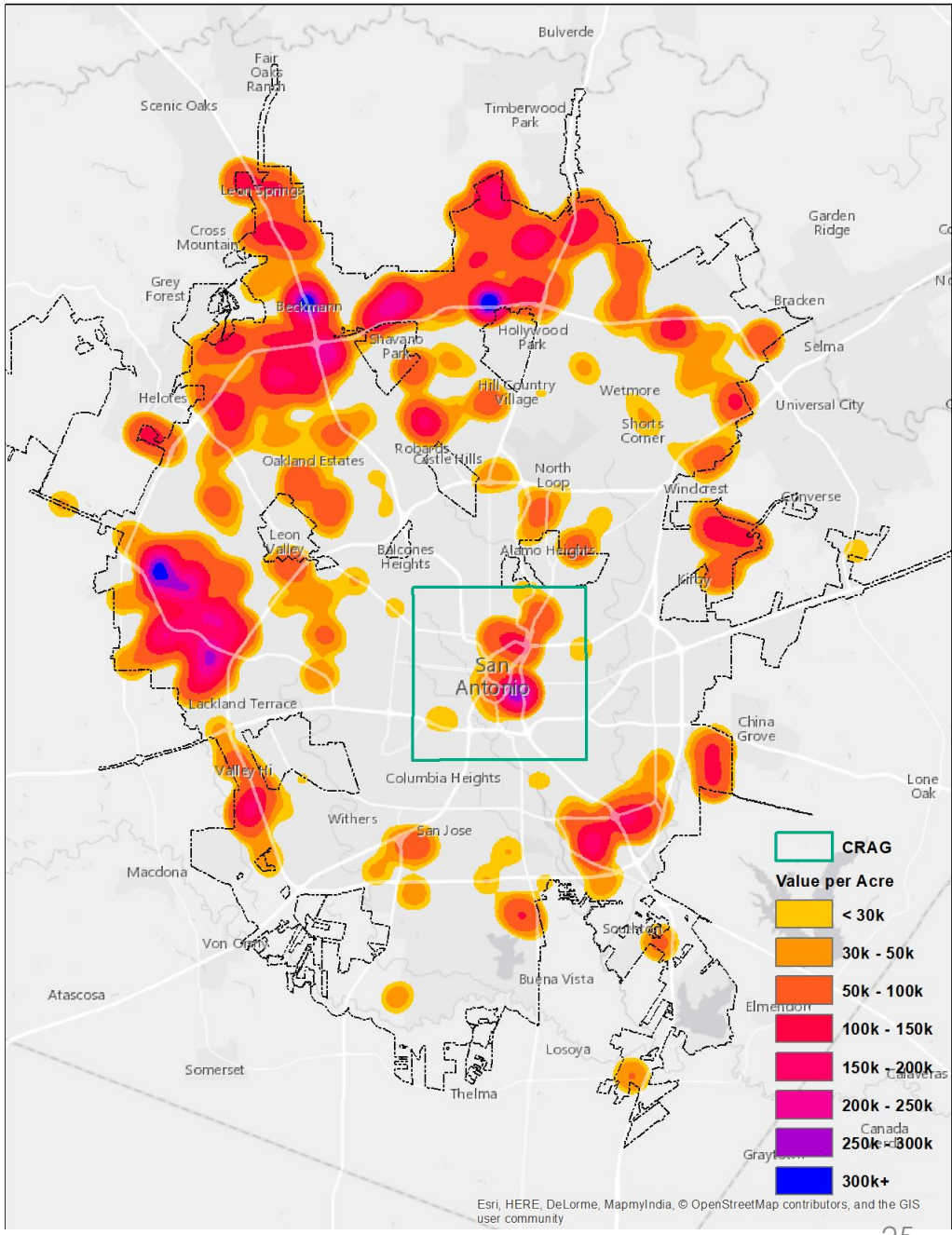
Permit Value per Acre (2005 – 2014)



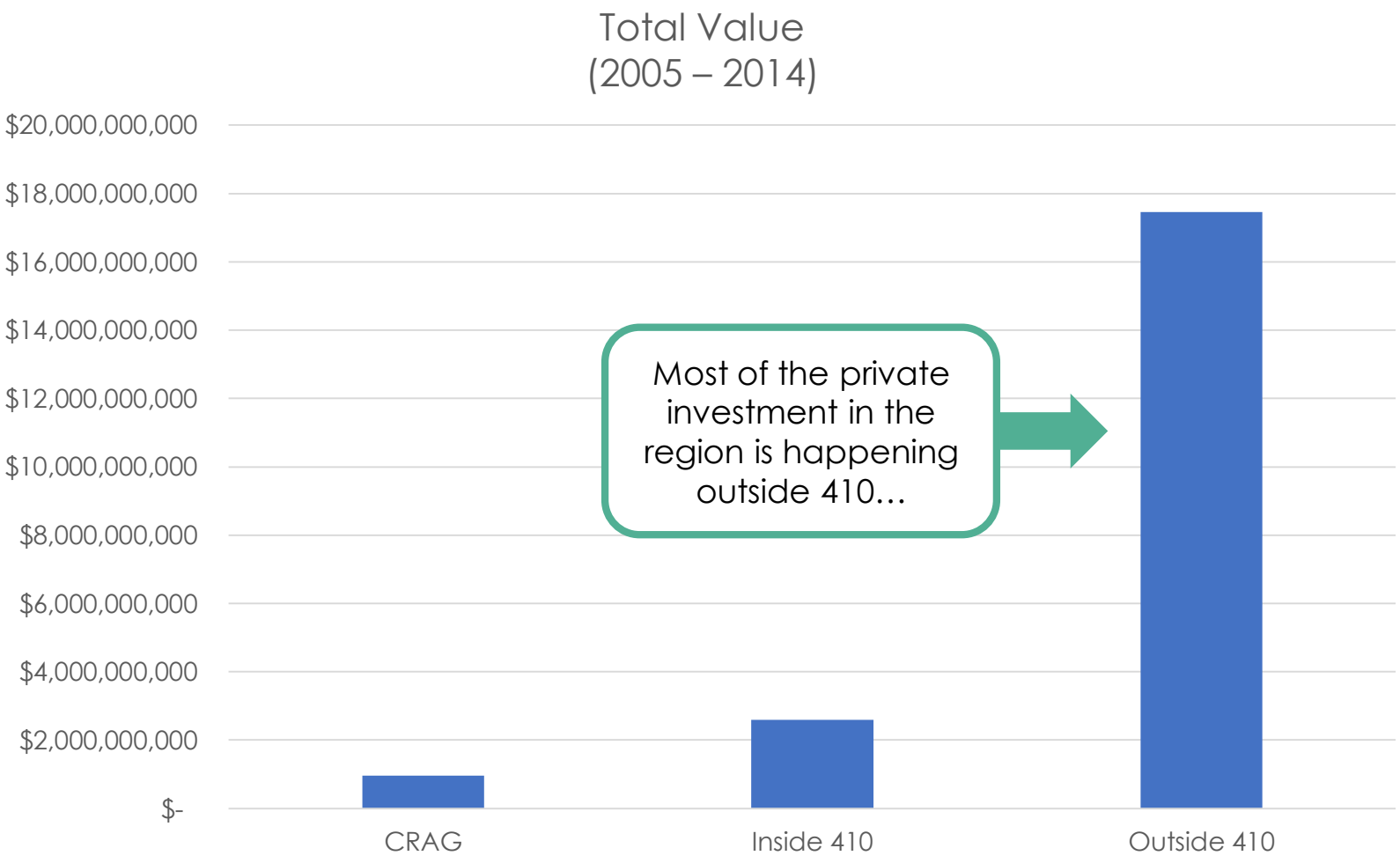
Property Tax

SAN ANTONIO, TX

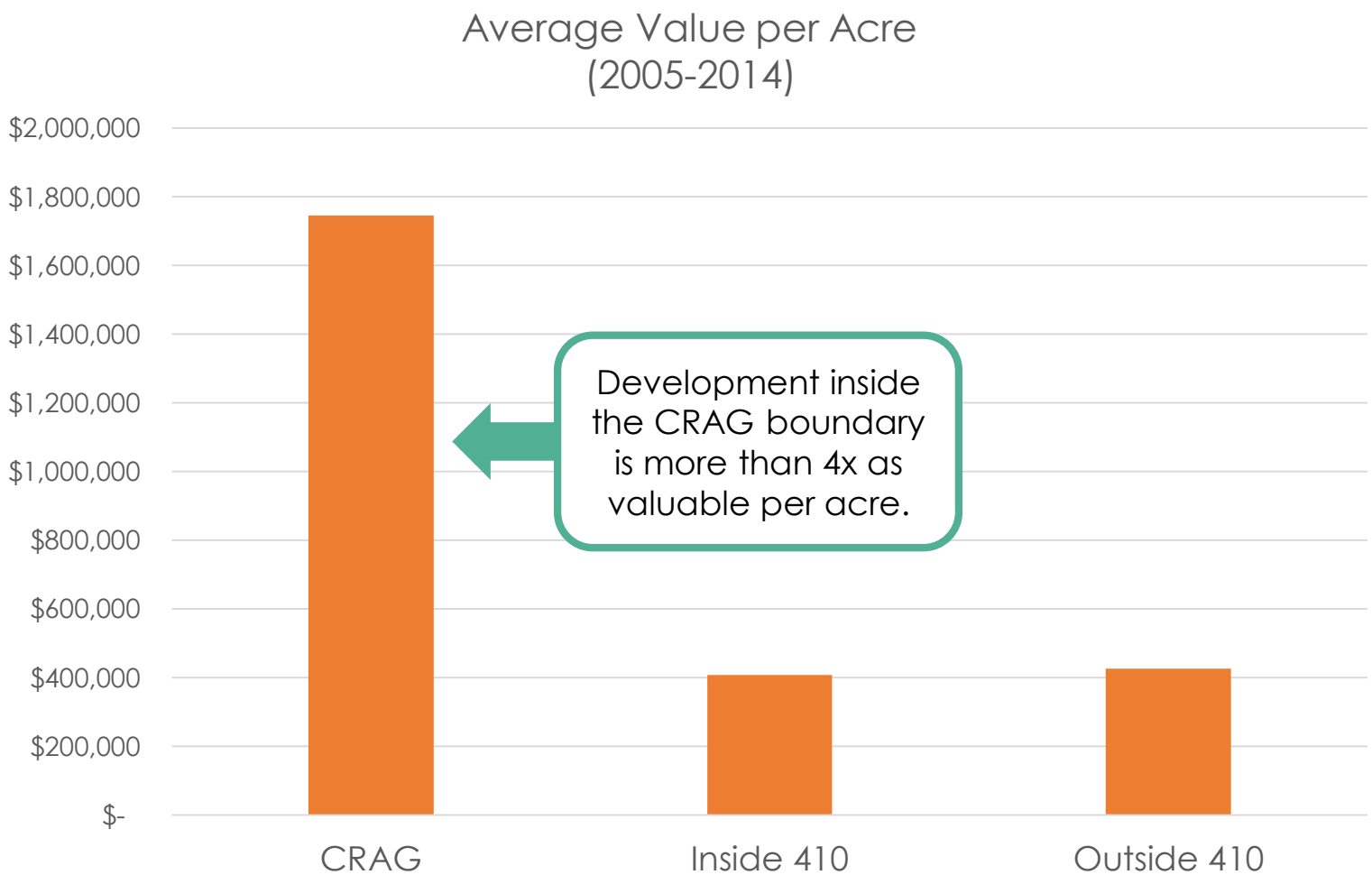
Permit Value
per Acre
(2005 – 2014)



Value of Development by Location

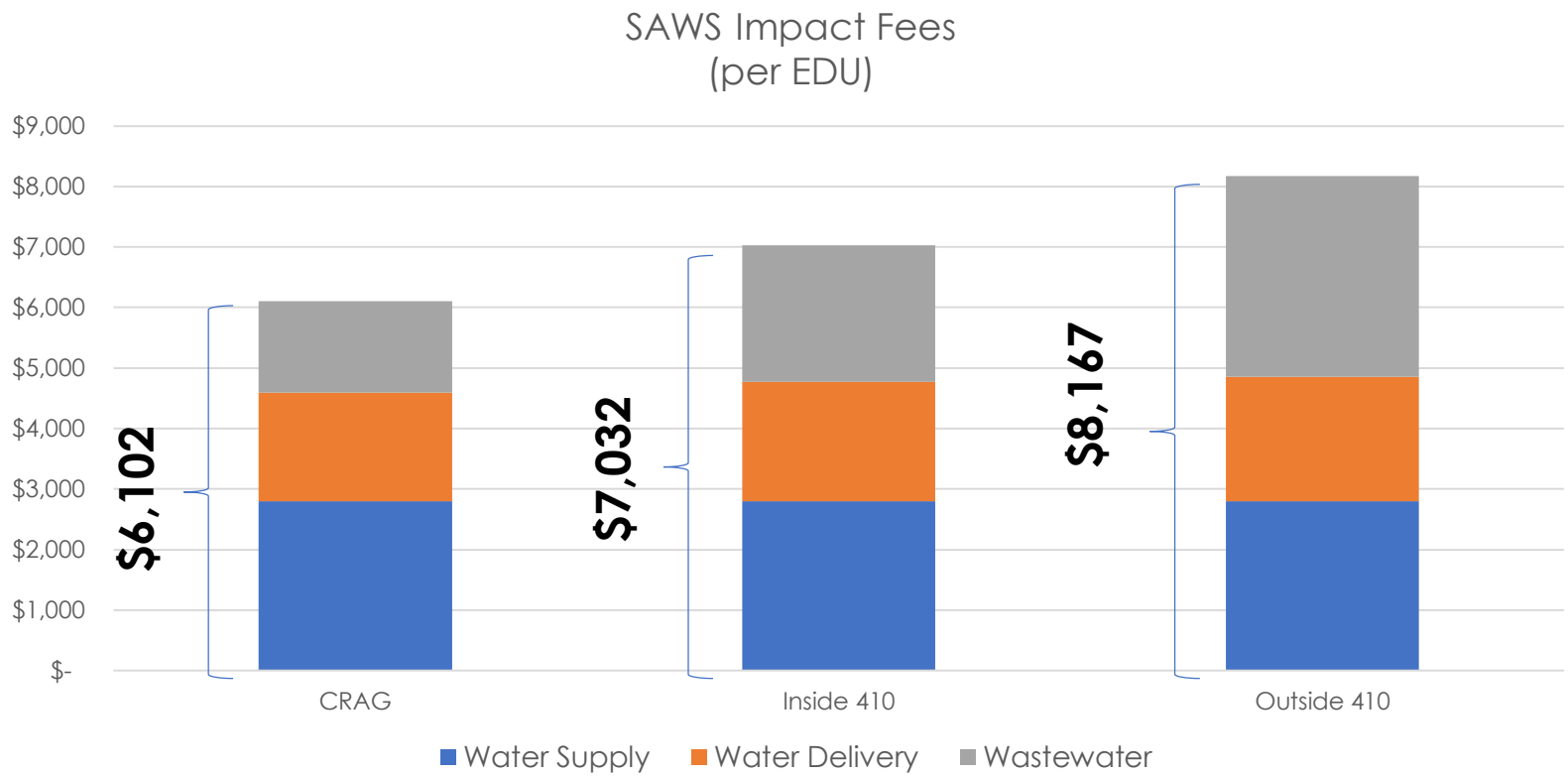


Value per Acre by Location



Impact Fees by Location

- Collected by SAWS
- Portion distributed to CoSA
- Varies by area



Single Family Costs – Civil Infrastructure

Urban

	Per Unit
Water Infrastructure	$6,949
Sewer Infrastructure	$5,408
Access, Drives, Parking	$3,201
Drainage	$ 0
Electrical Service	$3,220
Rough Proportionality	$1,420
ROW/Easement Taking	$3,795
Platting Fees	$100
Total	**$24,092**

Standard

	Per Unit
Water Infrastructure	$2,004
Sewer Infrastructure	$2,173
Access, Drives, Parking	$9,250
Drainage	$2,188
Electrical Service	$1,875
Rough Proportionality	$ 1,420
ROW/Easement Taking	$ 0
Platting Fees	$ 85
Total	**$18,994**

Source: Russell Yeager, Big Red Dog Engineering

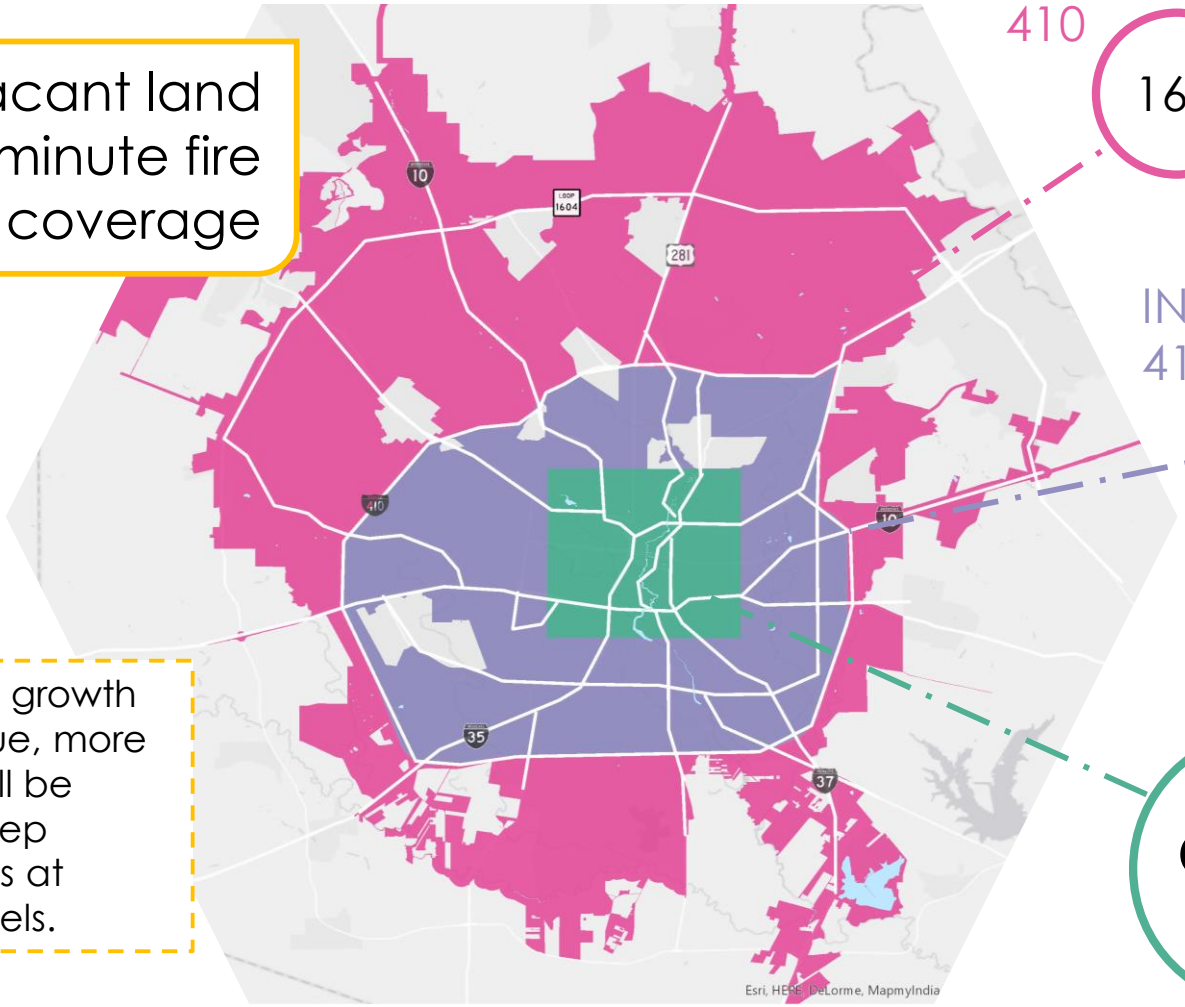
How Does New Development Generate Revenue?

Sources of Residential Expenditure

- Ongoing Expenditure
  - Police response
  - Fire response
  - Water and wastewater service provision
  - Energy service provision
  - Other city services
- One-Time Expenditure
  - Roadway construction
  - Water mains
  - Power generation infrastructure

Fire Service

Percent of vacant land area with 8-minute fire response coverage



OUTSIDE LOOP 410

16%

INSIDE LOOP 410

48%

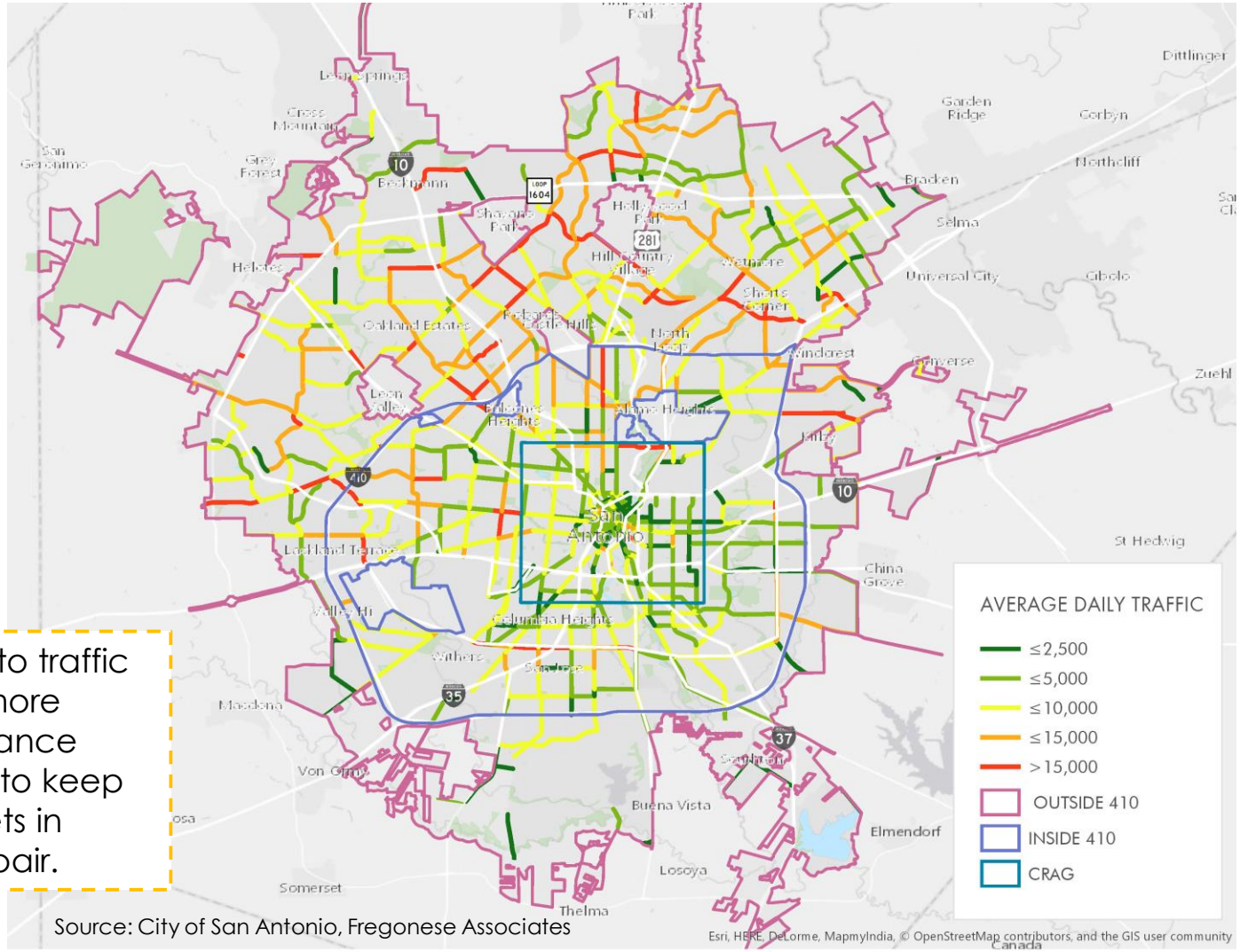
CRAG

99%

As population growth trends continue, more fire stations will be needed to keep response times at adequate levels.

Source: City of San Antonio, Fregonese Associates

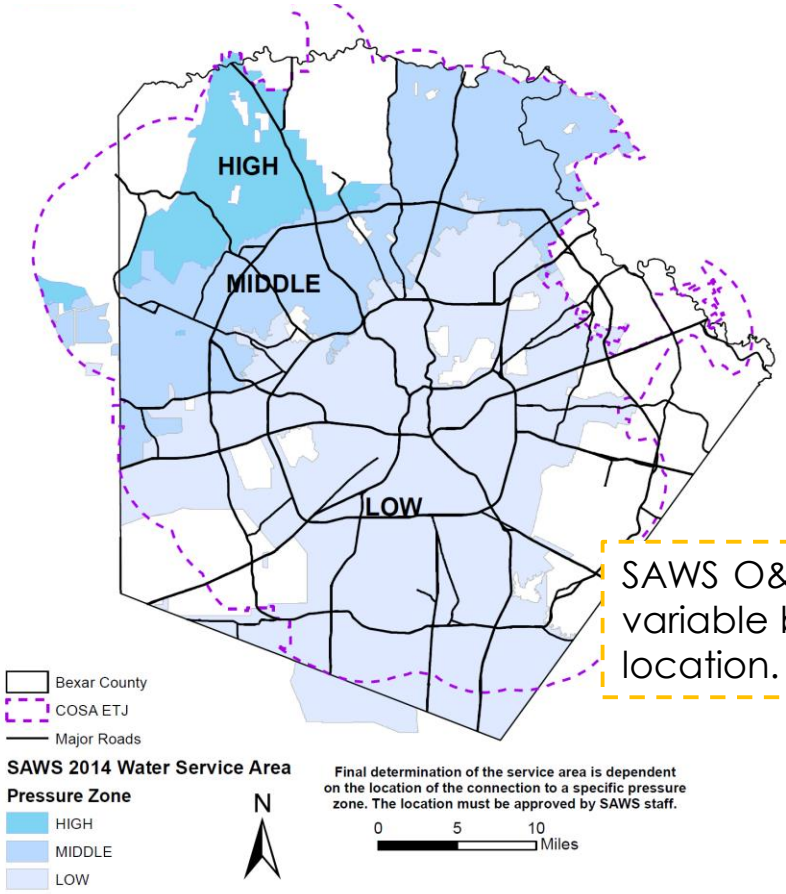
Daily Traffic Counts



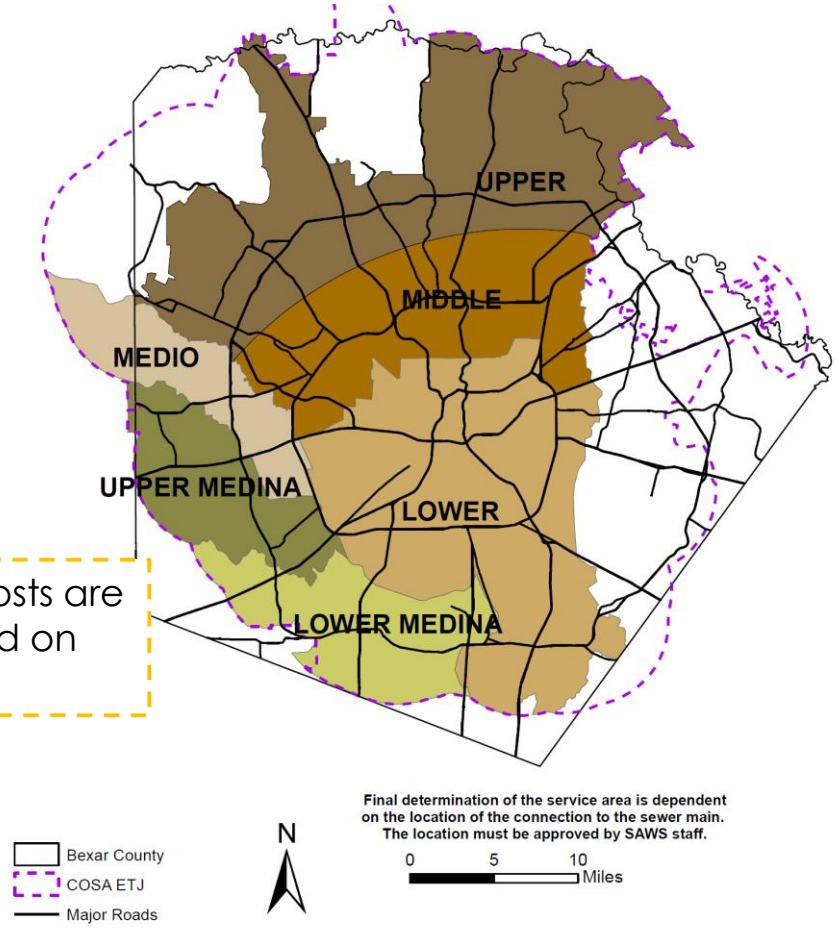
More auto traffic means more maintenance needed to keep city streets in good repair.

Source: City of San Antonio, Fregonese Associates

SAWS Cost of Service

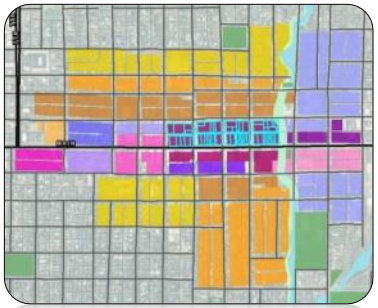


SAWS O&M costs are variable based on location.

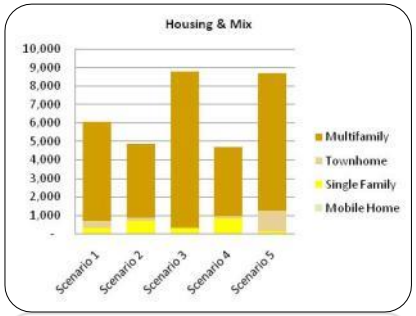


Fiscal Impact Modeling Process

Residential Building Types



Fiscal Modeling



Evaluation

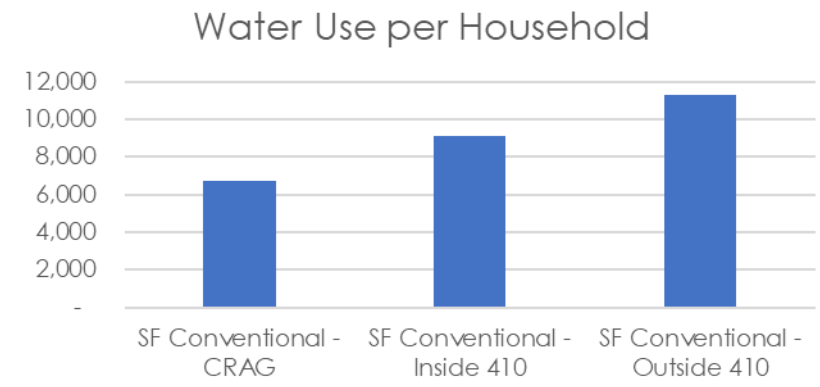
envision tomorrow™

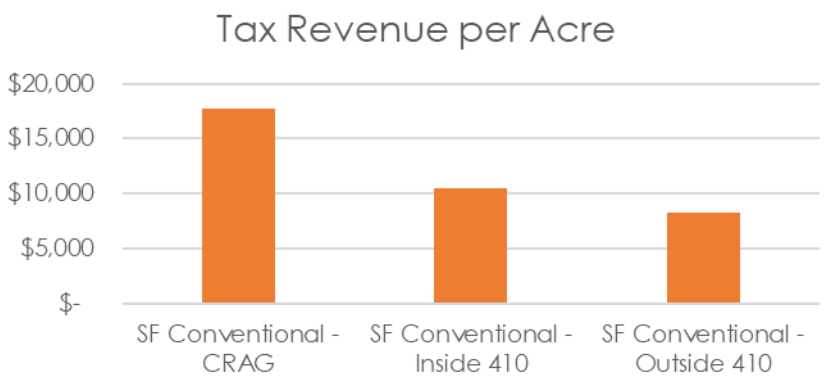
a suite of urban and regional planning tools

open source™

What Can We Model?

- Population
- Property and Sales Tax
- Impact Fees
- Water Use
- Wastewater Production
- Auto Trips
- Building Square Footage
- Parking Spaces



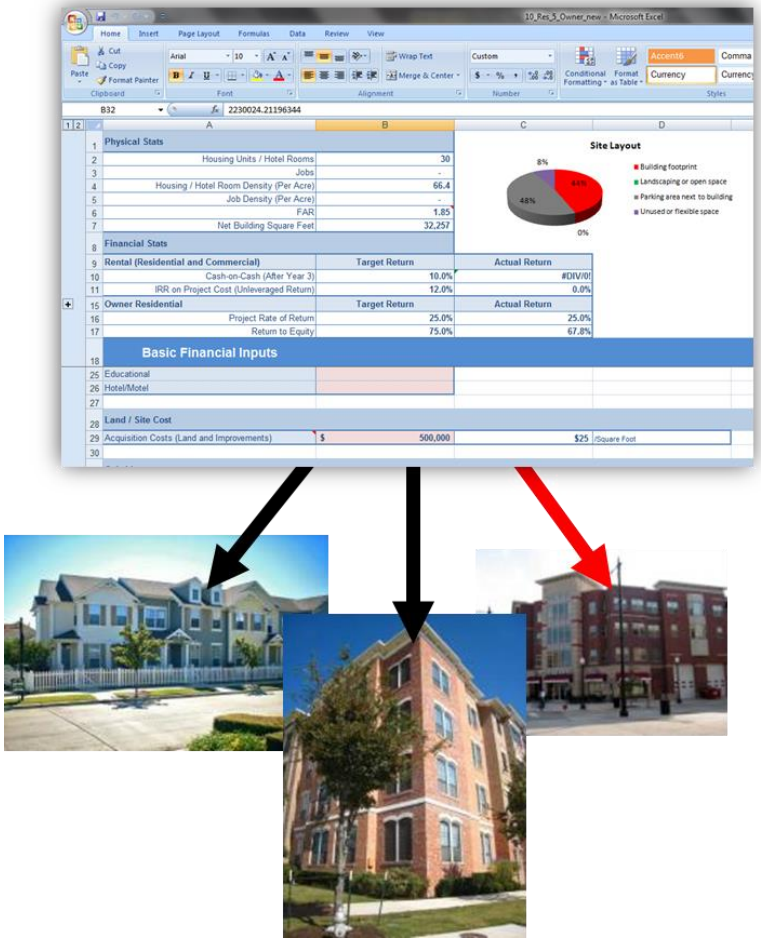


envision tomorrow™
a suite of urban and regional planning tools

Create Prototype Buildings

Why pro-formas?

- Easily modeled & lots of existing data
  - Density and Design
  - Rents and Sales Prices
  - Costs and Affordability
  - Energy and Water Use
- Physical Form
  - Height
  - Unit sizes
  - Parking configurations
- Financial Reality
  - Rents / sales prices
  - Construction costs
  - Land costs



Based on Real-World Examples

2			
3			
4	Key Building Stats	Housing Units	9
5		Housing Unit Density	38.9
6		Jobs	-
7		Job Density	-
8		FAR	0.89
9		Net Building Square Feet	7,599
10			
11	Site Inputs	Garden Apartment	
12	Building name		
13	Project City/State	10,000	square feet
14	Site area	0.23	acres
15		100%	(enter percentage)
16	Site gross-to-net ratio	25%	(enter percentage)
17	Landscaping or open space	2	stories
18	Building height (stories)	90%	(enter percentage)
19	Under-build		
20			
21	FAR & Density Checks		
22	Maximum FAR (if applicable)		FAR
23	Percent of Allowed FAR Used		

Mosaic on Broadway

- Units: 120
- Parking Spaces: 200
- Average Unit Size: 877

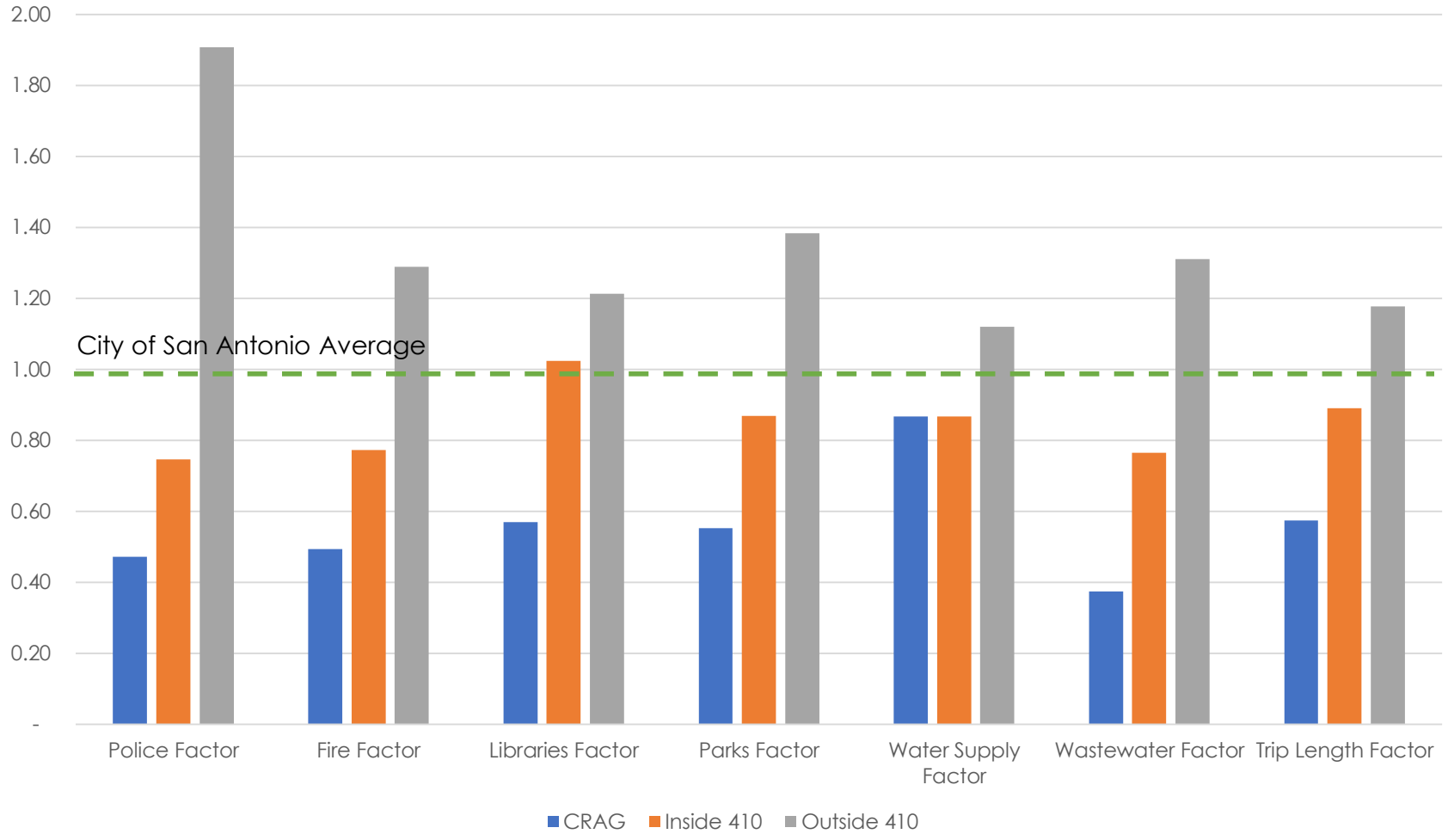
Digitize FY 2015 Budgets

Revenue	2015
Beginning Balance	$ 63,868,294
Property Tax	$ 293,694,785
Delinquent Property Tax	$ 4,857,474
Sales Tax	$ 274,646,415
Other Tax	$ 38,396,970
Licenses and Permits	$ 7,859,992
Intergovernmental	$ 8,015,702
CPS Energy	$ 335,933,940
San Antonio Water System	$ 13,896,079
Charges for Services	$ 59,397,276
Fines & Forfeits	$ 12,302,770
Miscellaneous	$ 10,325,645
Grants	$ -
Transfers from other funds	$ 36,971,686
Total Revenue	**$ 1,160,167,028**

- CoSA General Fund
- CPS Energy
- SAWS

Expenditure	2015
Animal Care Services	$ 12,538,983
Center City Development	$ 11,772,013
City Attorney	$ 8,242,623
City Auditor	$ 2,915,668
City Clerk	$ 3,446,923
City Manager	$ 3,179,198
Code Enforcement Services	$ 14,209,933
Eastpoint Office	$ 489,663
Economic Development	$ 5,343,622
Finance	$ 11,625,382
Fire	$ 291,204,568
Government & Public Affairs	$ 7,070,503
Health	$ 12,417,766
Historic Preservation	$ 1,560,838
Human Resources	$ 5,842,752
Human Services	$ 19,365,399
Library	$ 37,600,846
Management & Budget	$ 3,425,347
Mayor & Council	$ 7,026,120
Municipal Courts	$ 13,901,811
Municipal Elections	$ 84,811
Non-Departmental/Non-Operating	$ 25,477,675
Parks & Recreation	$ 47,126,399
Planning & Community Development	$ 3,581,574
Police	$ 425,037,118
Parks Police	$ 13,909,439
Transportation and Capital Improvements	$ 79,498,576
Contribution to Other Agencies	$ 19,027,505
Transfers	$ 11,755,234
Total Expenditure	**$ 1,098,678,289**

Location Factors



Level of Service Approach

Total Expenditure (2015) ÷ Level of Service Units (2015)

X

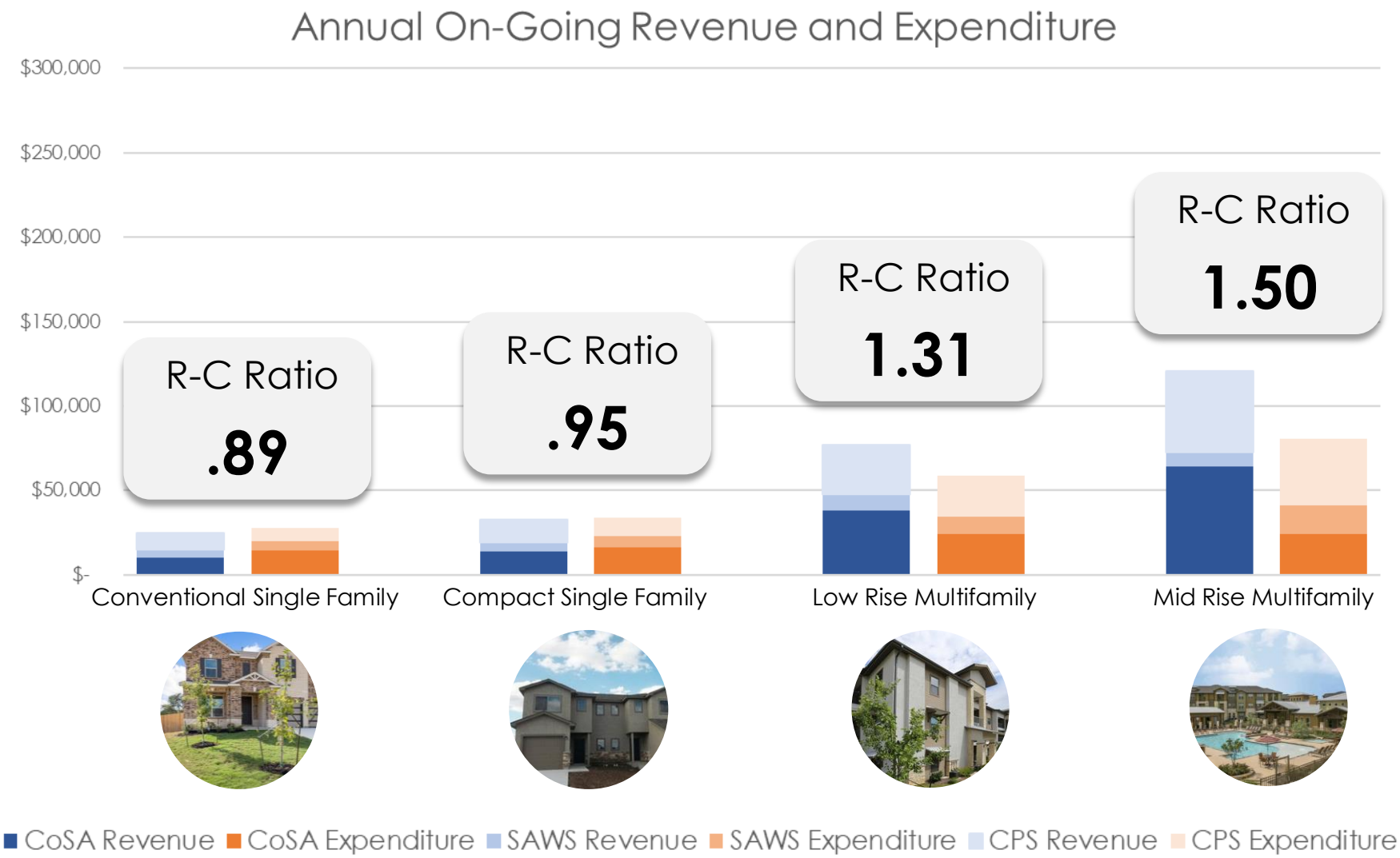
Level of Service Units (Scenario)

X

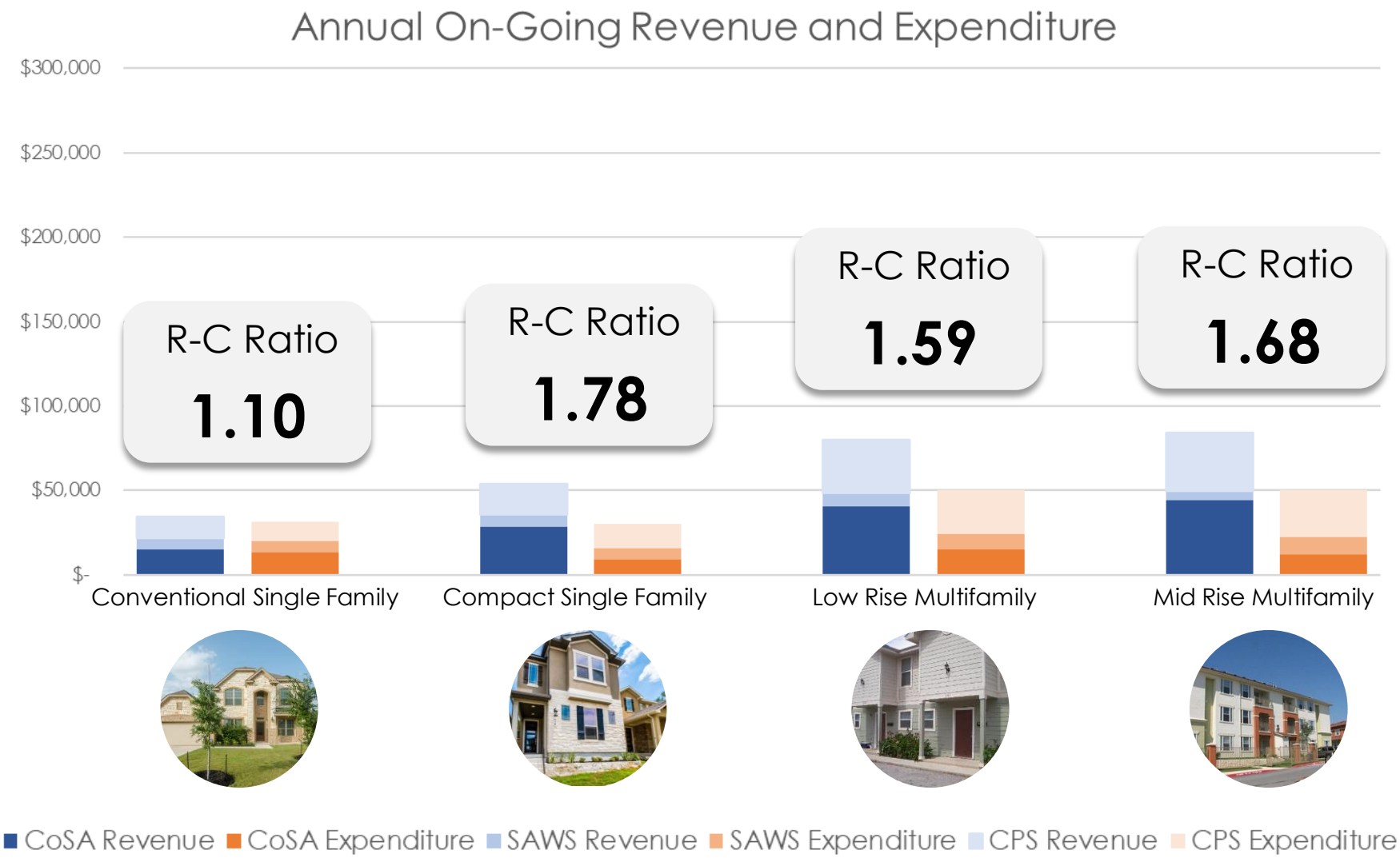
Location Factor (Scenario)

= Total Expenditure (Scenario)

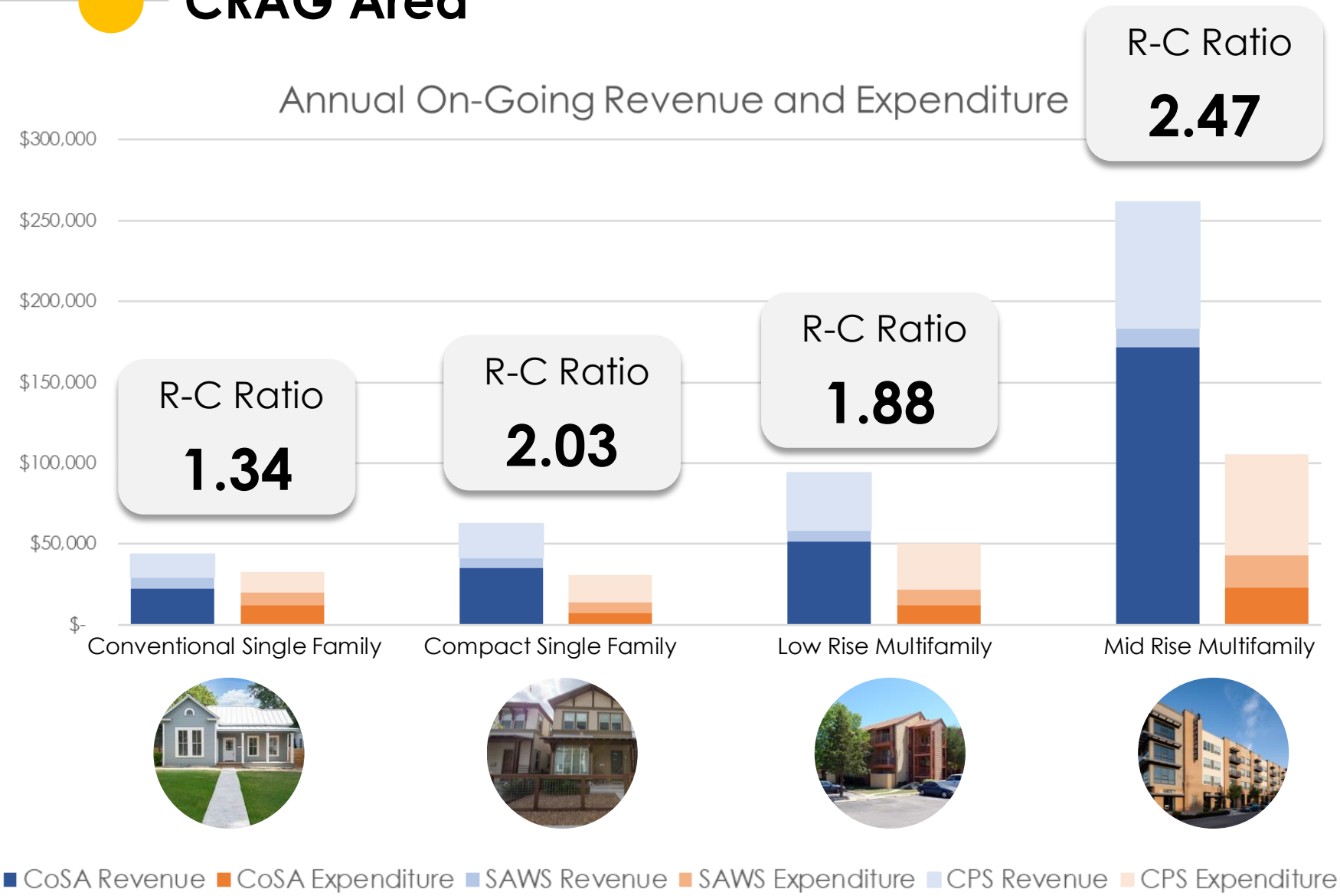
Outside 410 Area



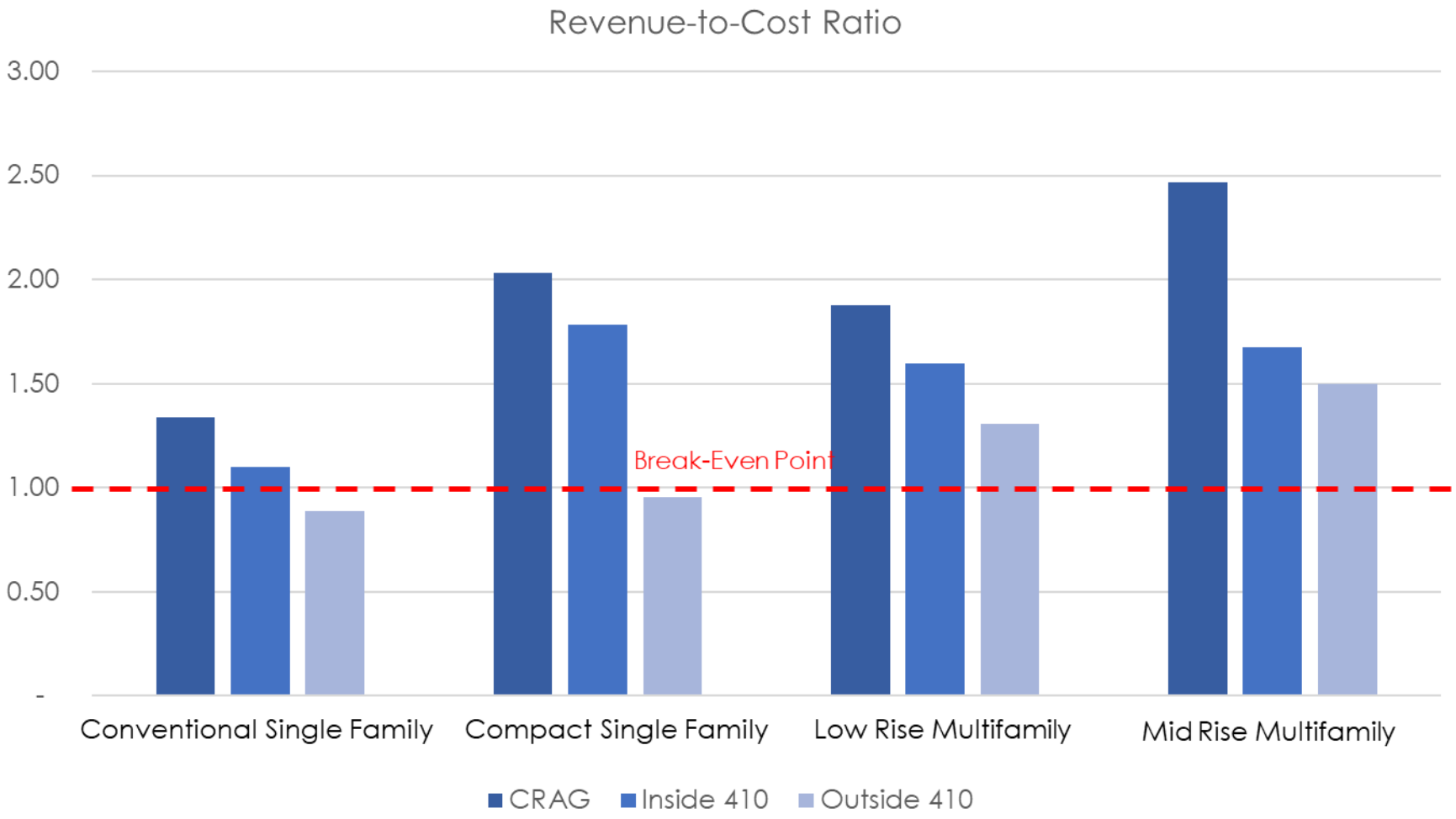
Inside 410 Area



CRAG Area


Annual On-Going Revenue and Expenditure
$300,000
$250,000
$200,000
$150,000
$100,000
$50,000
$-
R-C Ratio
1.34
R-C Ratio
2.03
R-C Ratio
1.88
R-C Ratio
2.47
Conventional Single Family
Compact Single Family
Low Rise Multifamily
Mid Rise Multifamily
CoSA Revenue
CoSA Expenditure
SAWS Revenue
SAWS Expenditure
CPS Revenue
CPS Expenditure

Long Term Performance by Building Type



What Do Ongoing Revenues and Costs Tell Us?

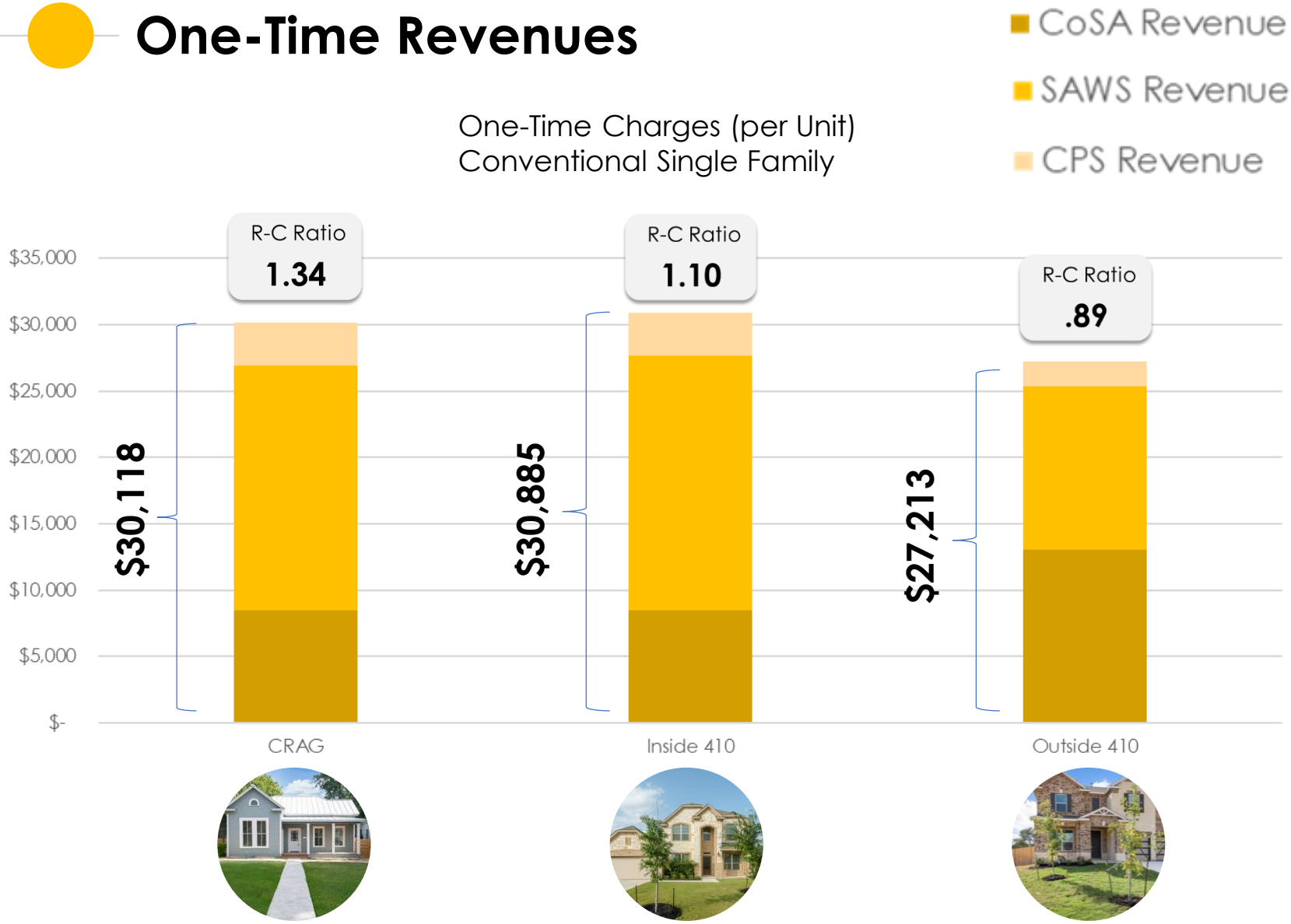
1. Within the 410 loop and CRAG study areas, **every residential product** type is revenue-positive in the long-term.
2. More compact residential products provide **greater long-term performance** than more dispersed housing.
3. From a purely fiscal perspective, San Antonio should **promote more compact housing** located close to the region's core.

One-Time Revenues / Fees

- Unlike ongoing revenue, one-time revenue is captured in year one only.
- Fees paid by developer to service provider (aka CoSA).
- Some are predictable, others are site-dependent.
- Examples include impact fees, electrical infrastructure upgrade costs, and ROW dedication.

One-Time Revenues

One-Time Charges (per Unit)
Conventional Single Family

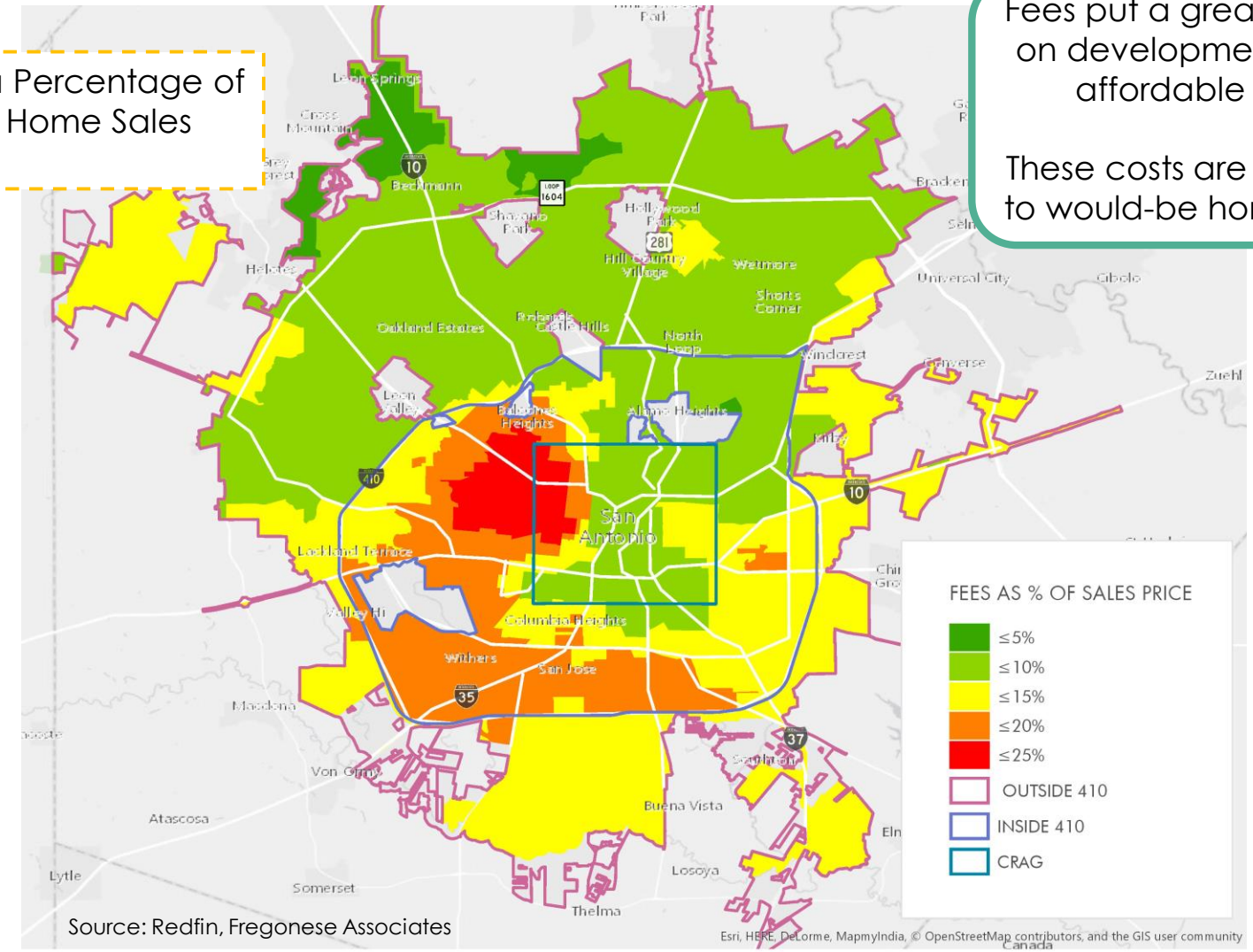


Cost Burden of One-Time Fees

Fees as a Percentage of Average Home Sales Price

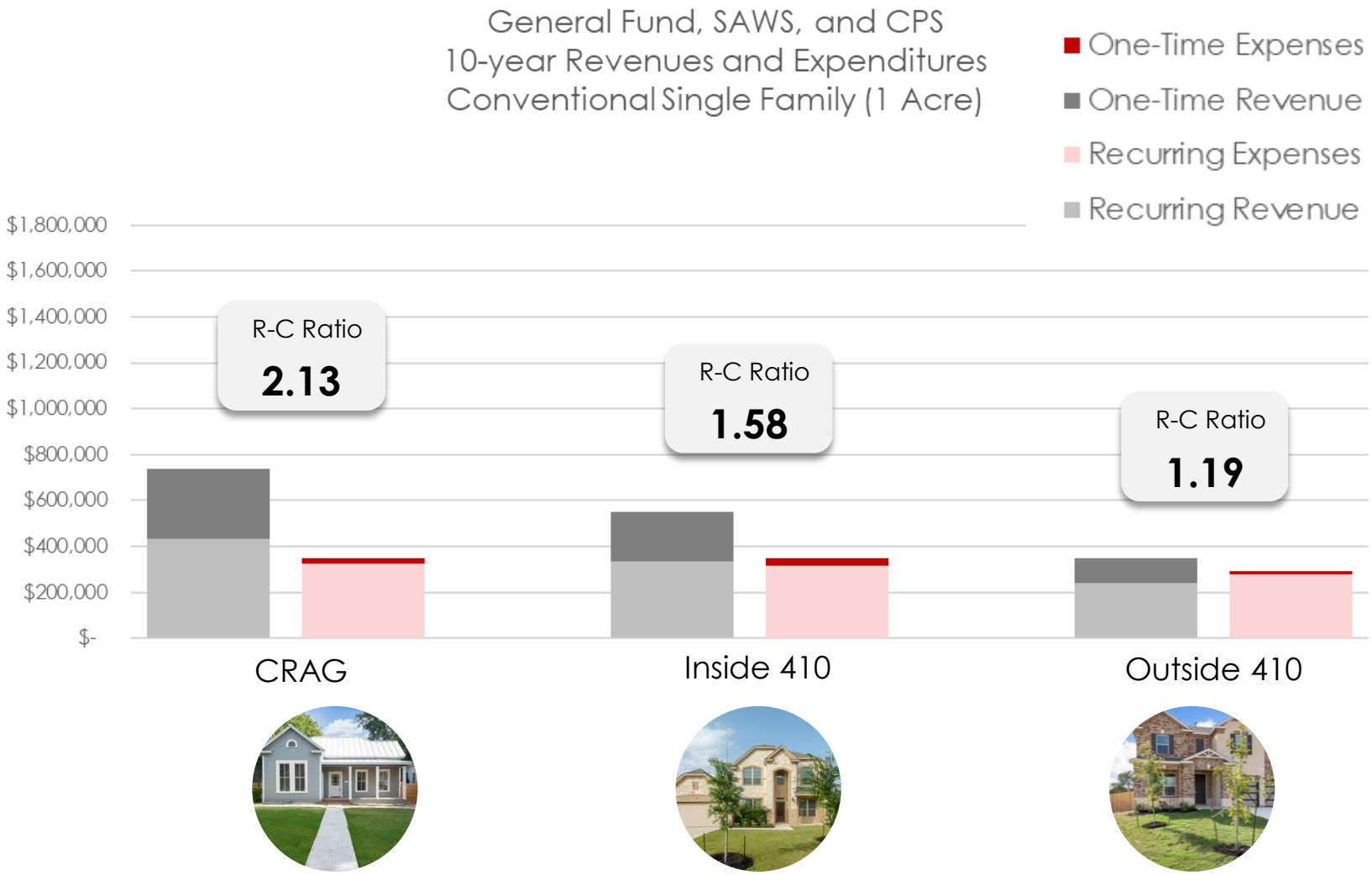
Fees put a greater burden on development in more affordable areas.

These costs are passed on to would-be home buyers.

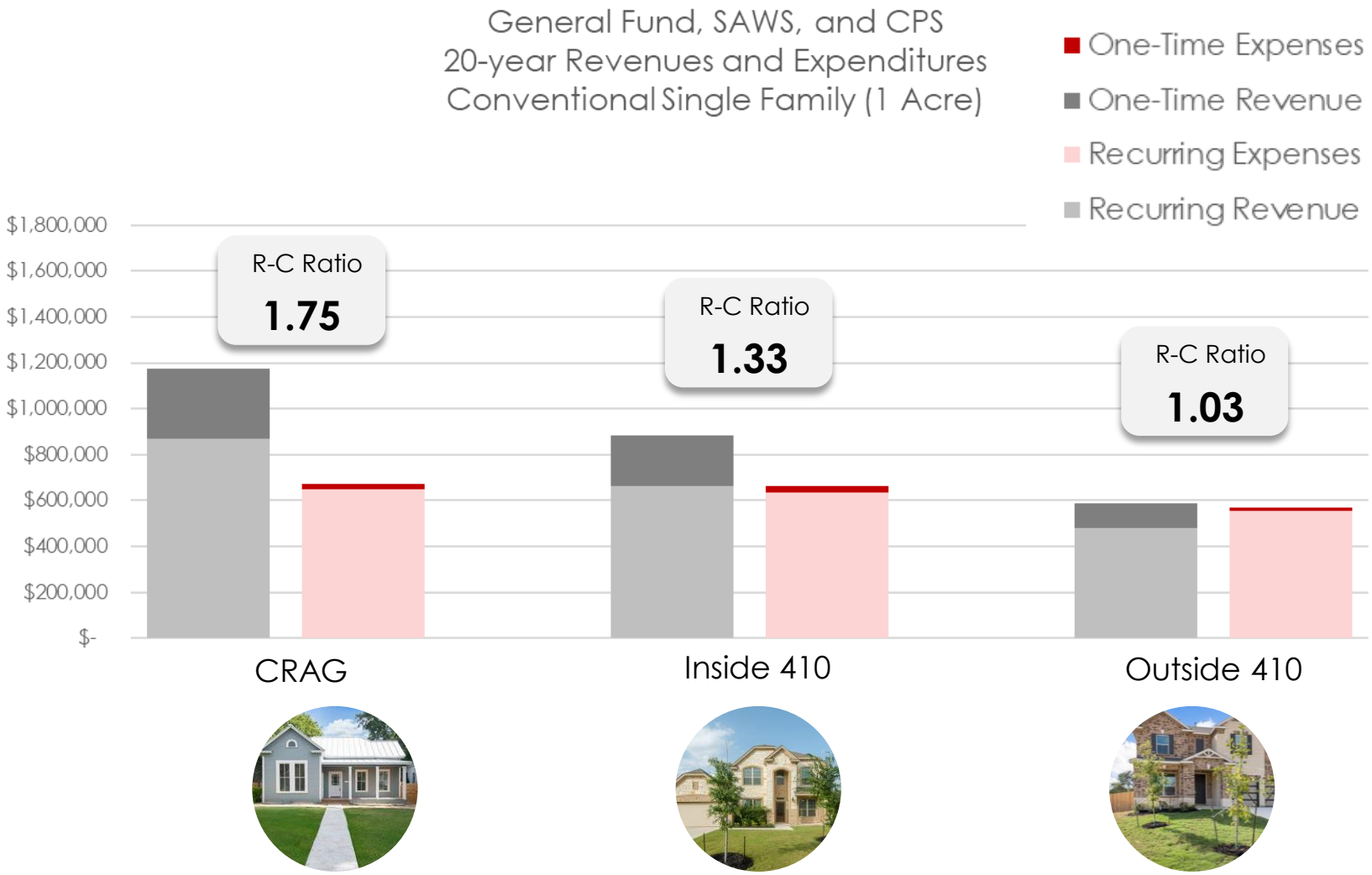


Source: Redfin, Fregonese Associates

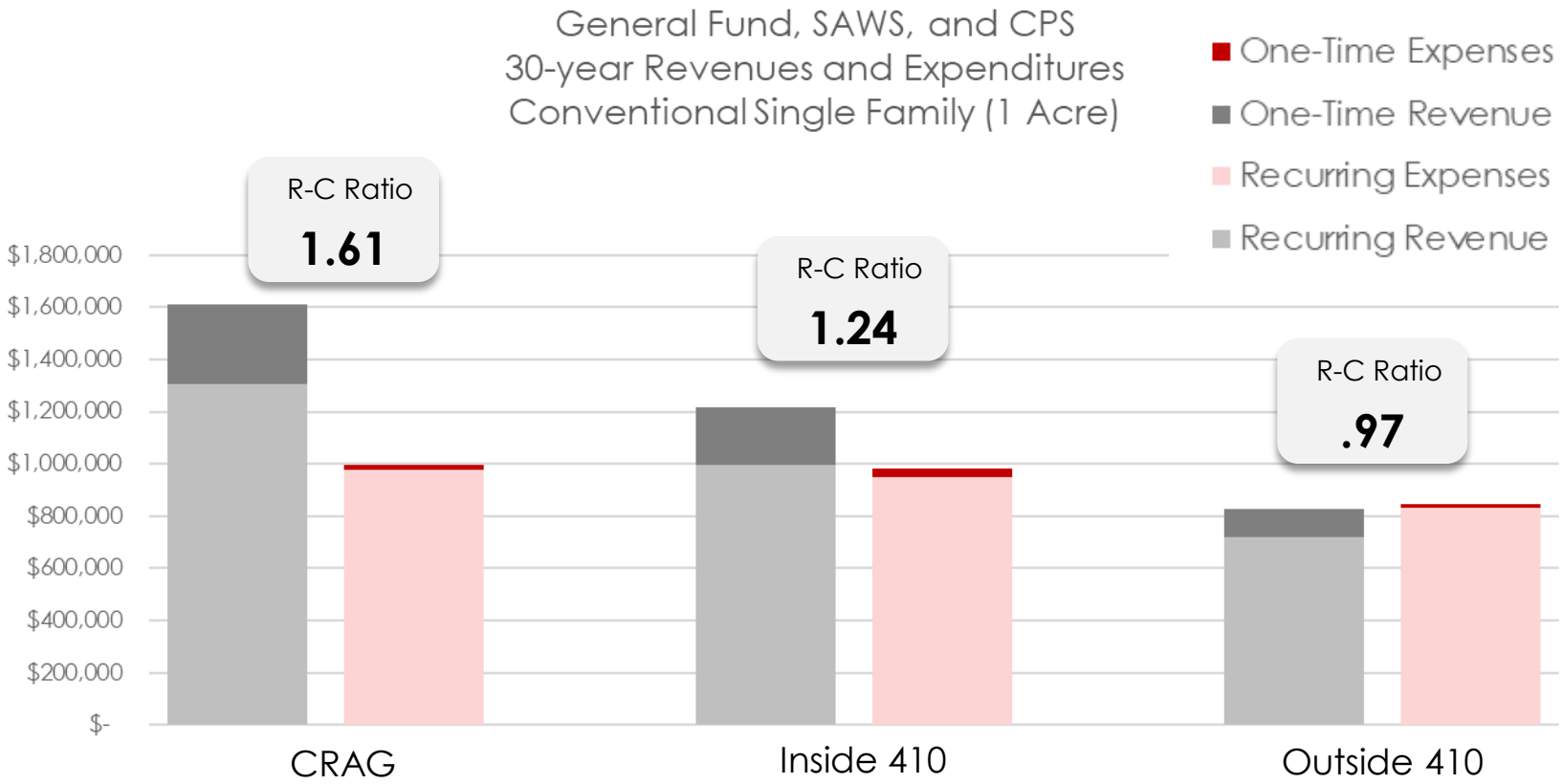
Long Term Fiscal Performance – 10 Years

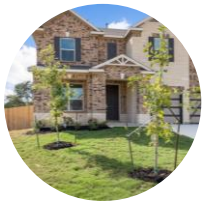


Long Term Fiscal Performance – 20 Years



Long Term Fiscal Performance – 30 Years





Why Does Any of This Matter?

Compact development provides benefits beyond fiscal performance…

- It provides a range of additional co-benefits
- Most importantly, it can help us meet our **SA Tomorrow goals and policies**.

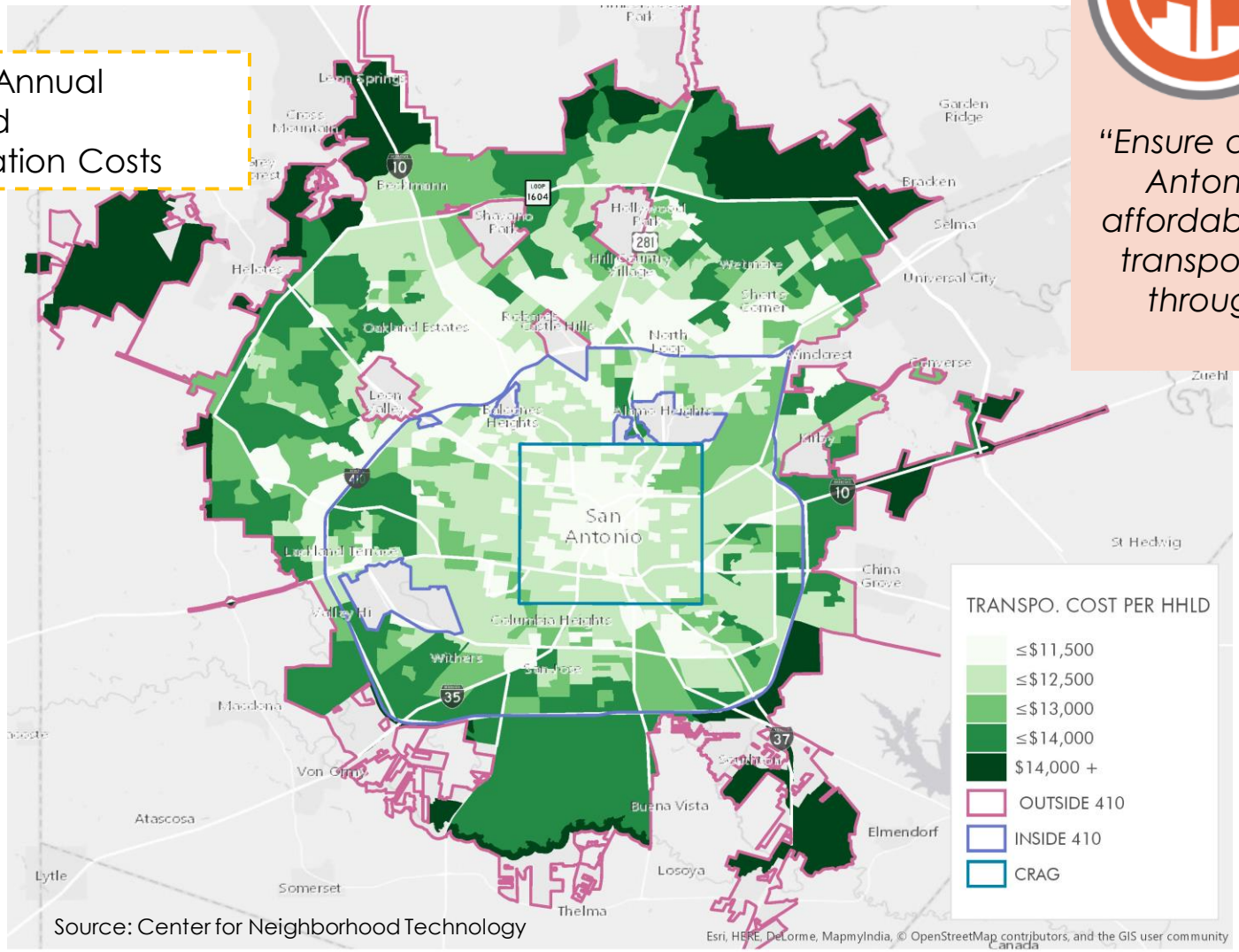
Comprehensive Plan

Sustainability Plan

Multimodal Transportation Plan

SA Tomorrow Comprehensive Plan: Inclusivity and Affordability

Average Annual Household Transportation Costs



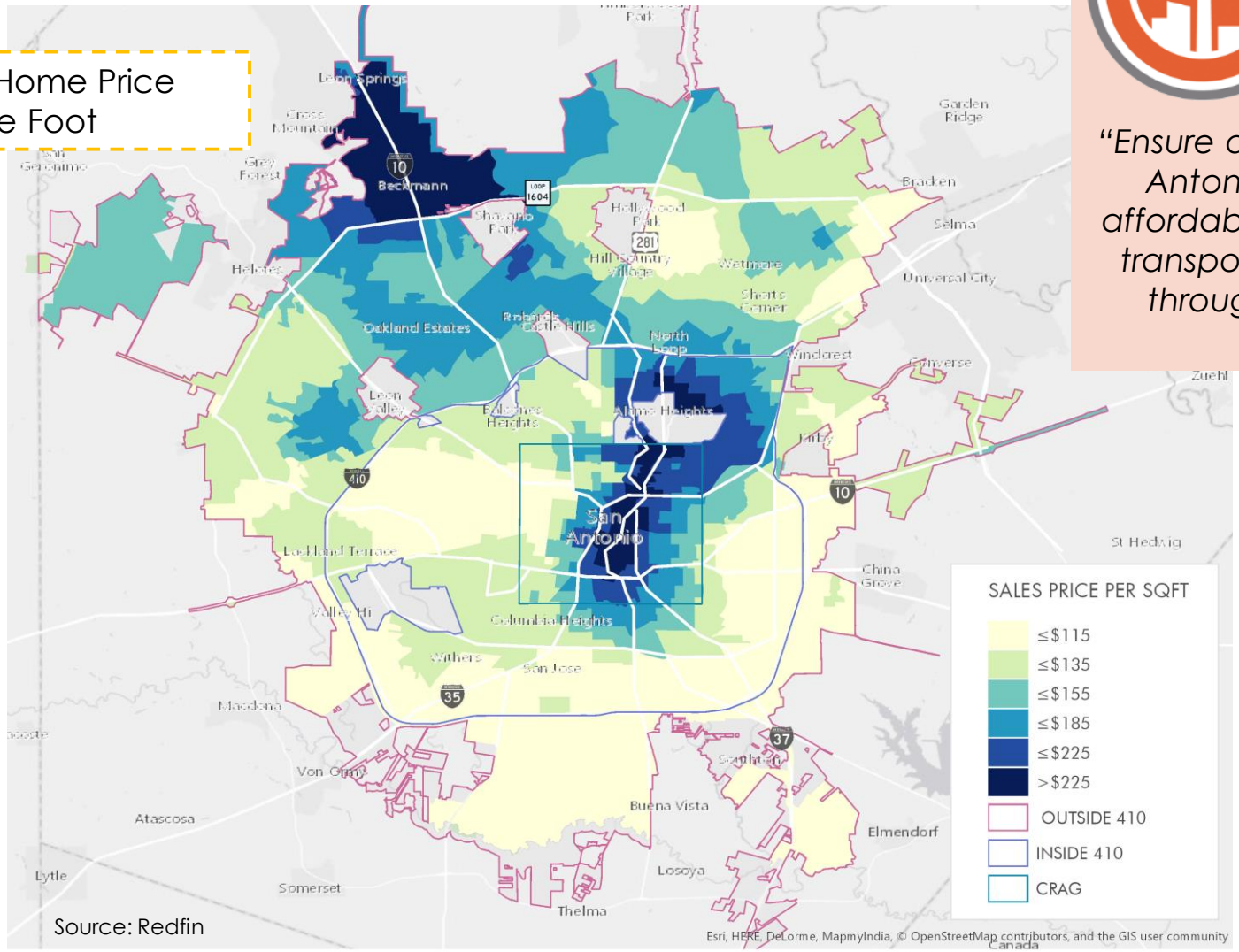
Source: Center for Neighborhood Technology

Guiding Principle:

"Ensure an inclusive San Antonio by providing affordable housing and transportation choices throughout the city."

SA Tomorrow Comprehensive Plan: Inclusivity and Affordability

Average Home Price per Square Foot



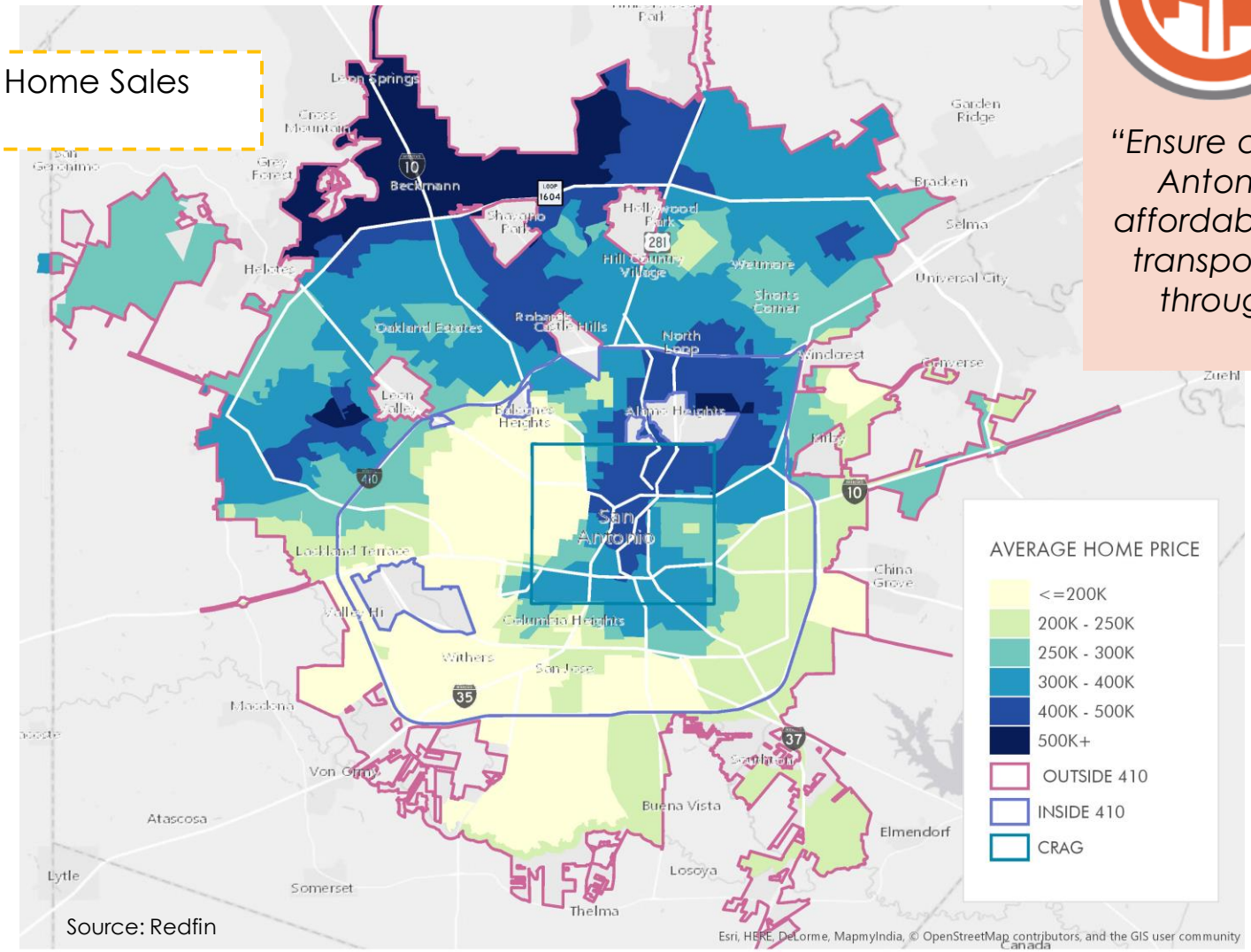
Source: Redfin

Guiding Principle:

"Ensure an inclusive San Antonio by providing affordable housing and transportation choices throughout the city."

SA Tomorrow Comprehensive Plan: Inclusivity and Affordability

Average Home Sales Price



Source: Redfin

Guiding Principle:

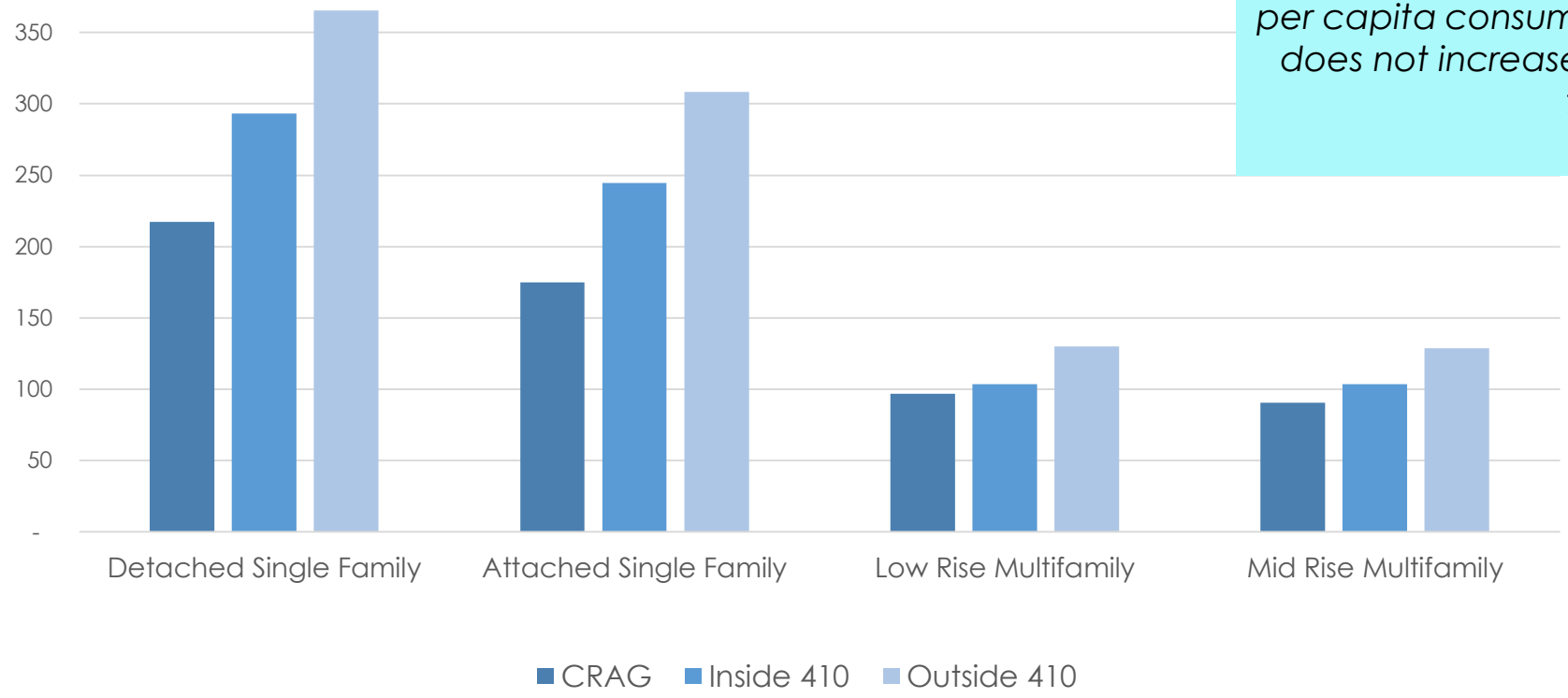
"Ensure an inclusive San Antonio by providing affordable housing and transportation choices throughout the city."

SA Tomorrow Sustainability Plan: Natural Resources

Desired Outcome:

"Water use in San Antonio is efficient and per capita consumption does not increase over time."

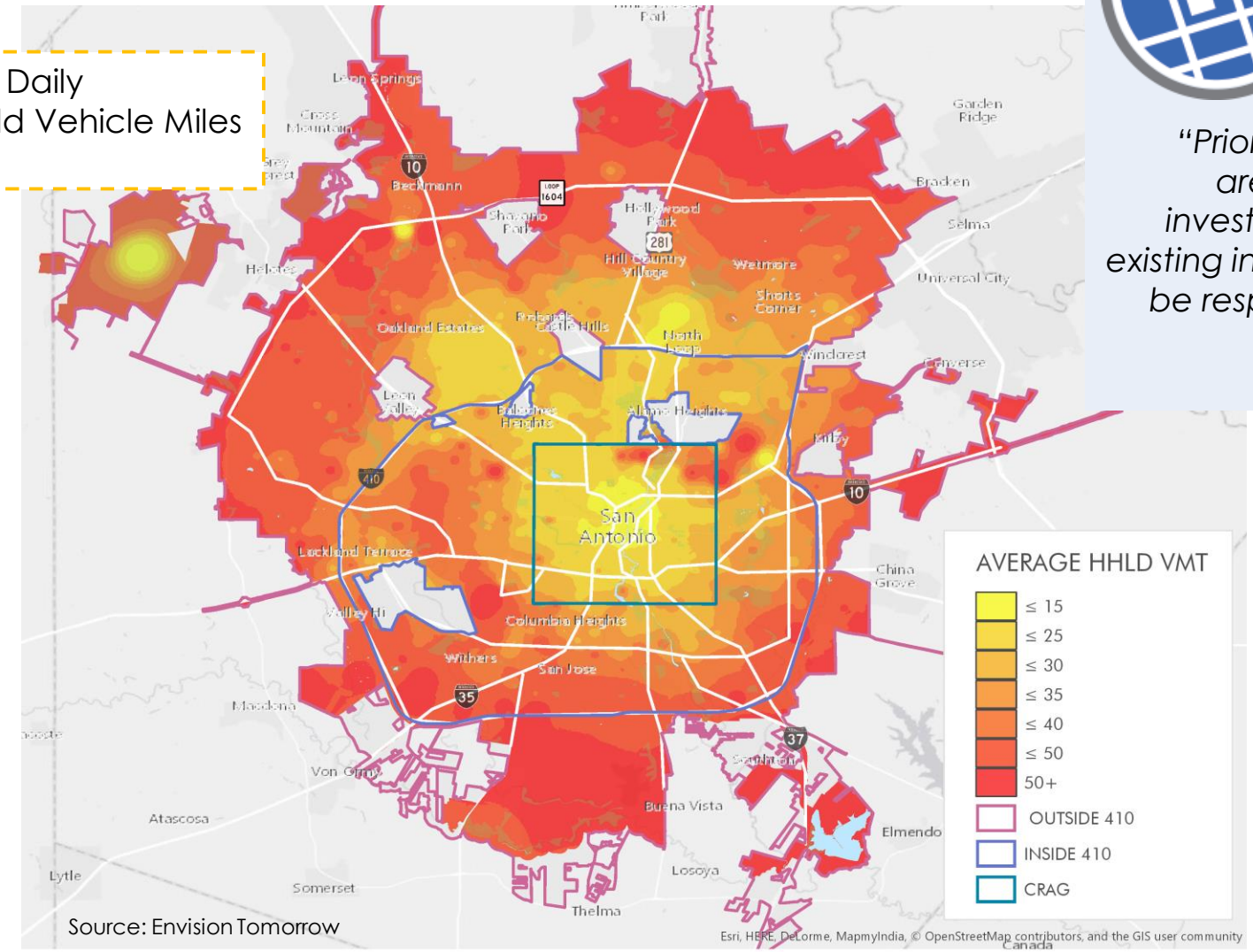
Average Water Use per Household (Gallons per Day)



Source: Envision Tomorrow

SA Tomorrow Multimodal Transportation Plan: Strategic Development

Average Daily Household Vehicle Miles Traveled

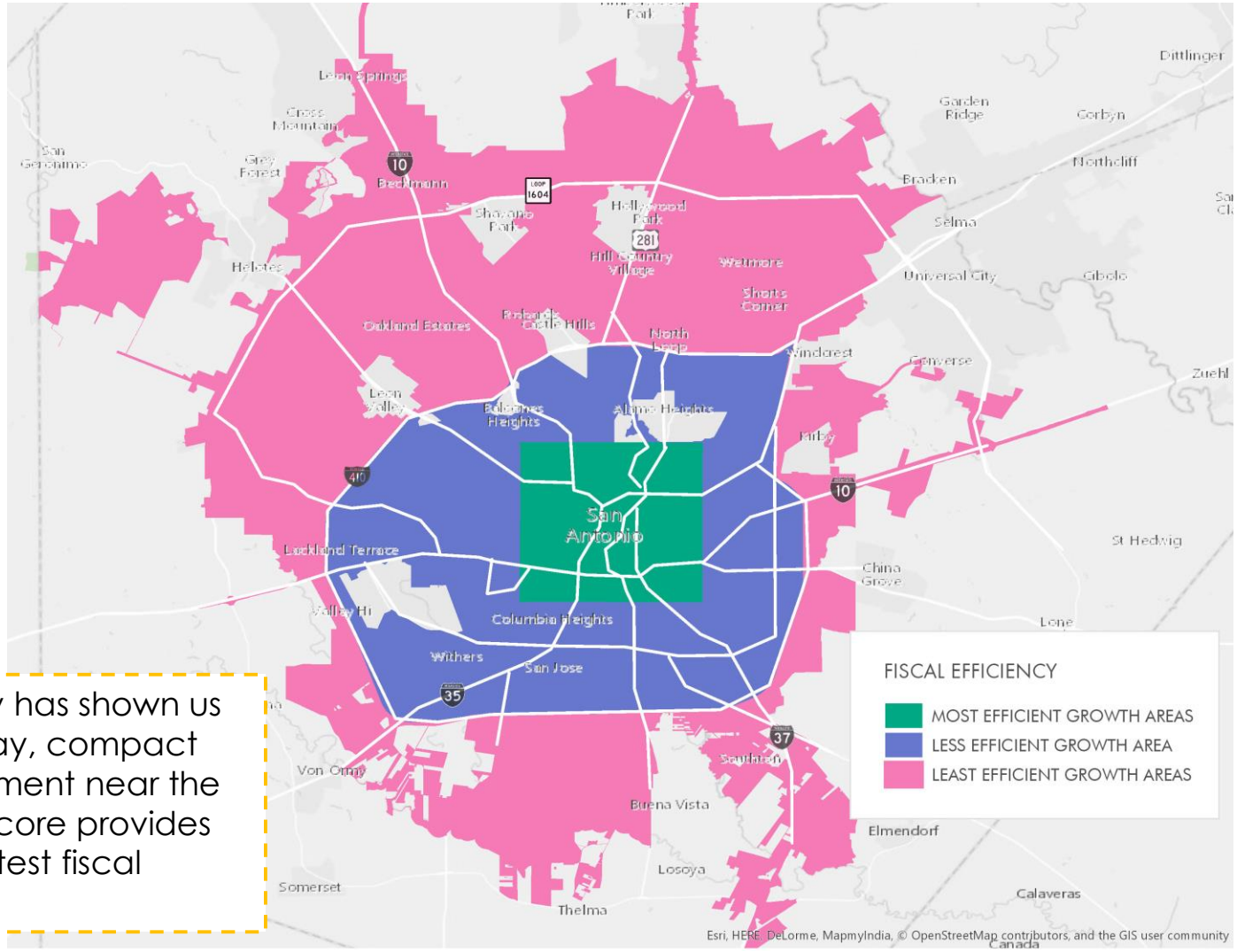


Source: Envision Tomorrow

Goal/ Objective:

"Prioritize projects in areas where new investment will utilize existing investments and be responsive to land use patterns."

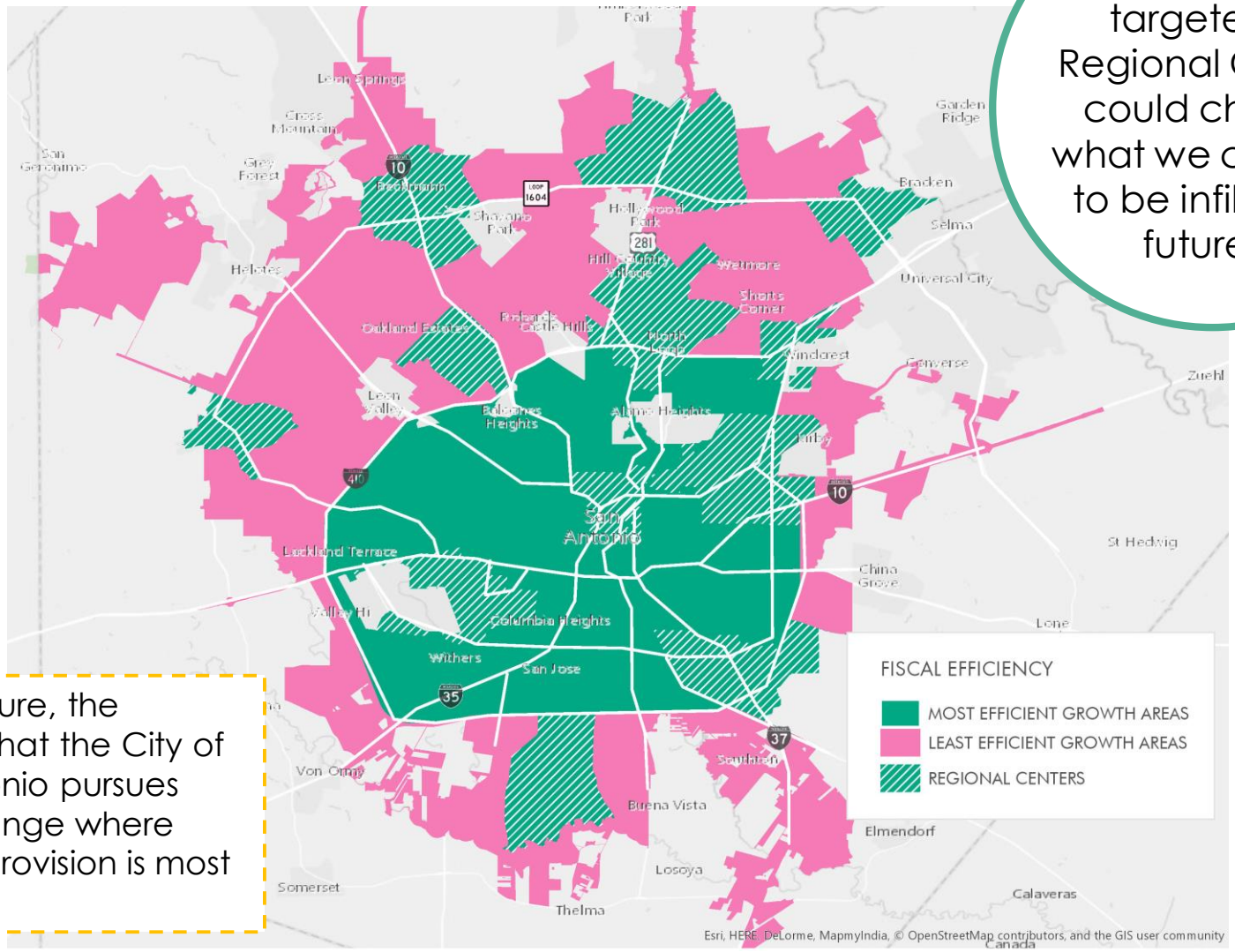
Fiscal Efficiency Today



This study has shown us that today, compact development near the region's core provides the greatest fiscal benefit.

Fiscal Efficiency in the Future

Investments targeted at Regional Centers could change what we consider to be infill in the future…



In the future, the policies that the City of San Antonio pursues may change where service provision is most efficient.

Final Thoughts

- We have strong direction from SA Tomorrow to promote housing affordability, sustainable development, and equitable transportation.
- Infill development helps further these goals in addition to providing **revenue-positive fiscal performance** in the short and long term.

However…

- One-time fees, such as impact fees and infrastructure upgrade costs, make infill development less lucrative than greenfield development.
- The City, SAWS, and CPS should examine how they distribute one-time costs to ensure they are promoting infill development.

Q & A

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